WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE

and

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.

AS OF
MAR. 1, 1965

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Soil Conservation Service, 511 N.W. Broadway - Room 507, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
Western United States	Monthly (Feb.-May)	Portland, Oregon	All Cooperators
Basic Data Summary	October 1	Portland, Oregon	All Cooperators
STATES			
Alaska	Monthly (Mar.-May)	Palmer, Alaska	Alaska S.C.D.
Arizona	Semi-Monthly (Jan.15 - Apr.1)	Phoenix, Arizona	Salt R. Valley Water Users Assoc. Ariz. Agr. Exp. Station
Colorado and New Mexico	Monthly (Feb.-May)	Fort Collins, Colorado	Colo. State University Colo. State Engineer N. Mex. State Engineer
Idaho	Monthly (Jan.-June)	Boise, Idaho	Idaho State Reclamation Engineer
Montana	Monthly (Jan.-June)	Bozeman, Montana	Mont. Agr. Exp. Station
Nevada	Monthly (Jan.-May)	Reno, Nevada	Nevada Dept. of Conservation and Natural Resources Division of Water Resources
Oregon	Monthly (Jan.-June)	Portland, Oregon	Oreg. State University Oregon State Engineer
Utah	Monthly (Jan.-June)	Salt Lake City, Utah	Utah State Engineer
Washington	Monthly (Feb.-June)	Spokane, Washington	Wn. State Dept. of Conservation
Wyoming	Monthly (Feb.-June)	Casper, Wyoming	Wyoming State Engineer

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
British Columbia	Monthly (Feb.-June)	Water Resources Service, Dept. of Lands, Forest and Water Resources, Parliament Blog., Victoria, B.C., Canada
California	Monthly (Feb.-May)	Calif. Dept. of Water Resources, P.O. Box 388, Sacramento, Calif.

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WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
OREGON

ISSUED

MARCH 8, 1965

Report prepared by

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and

BOB L. WHALEY, Assistant Snow Survey Supervisor

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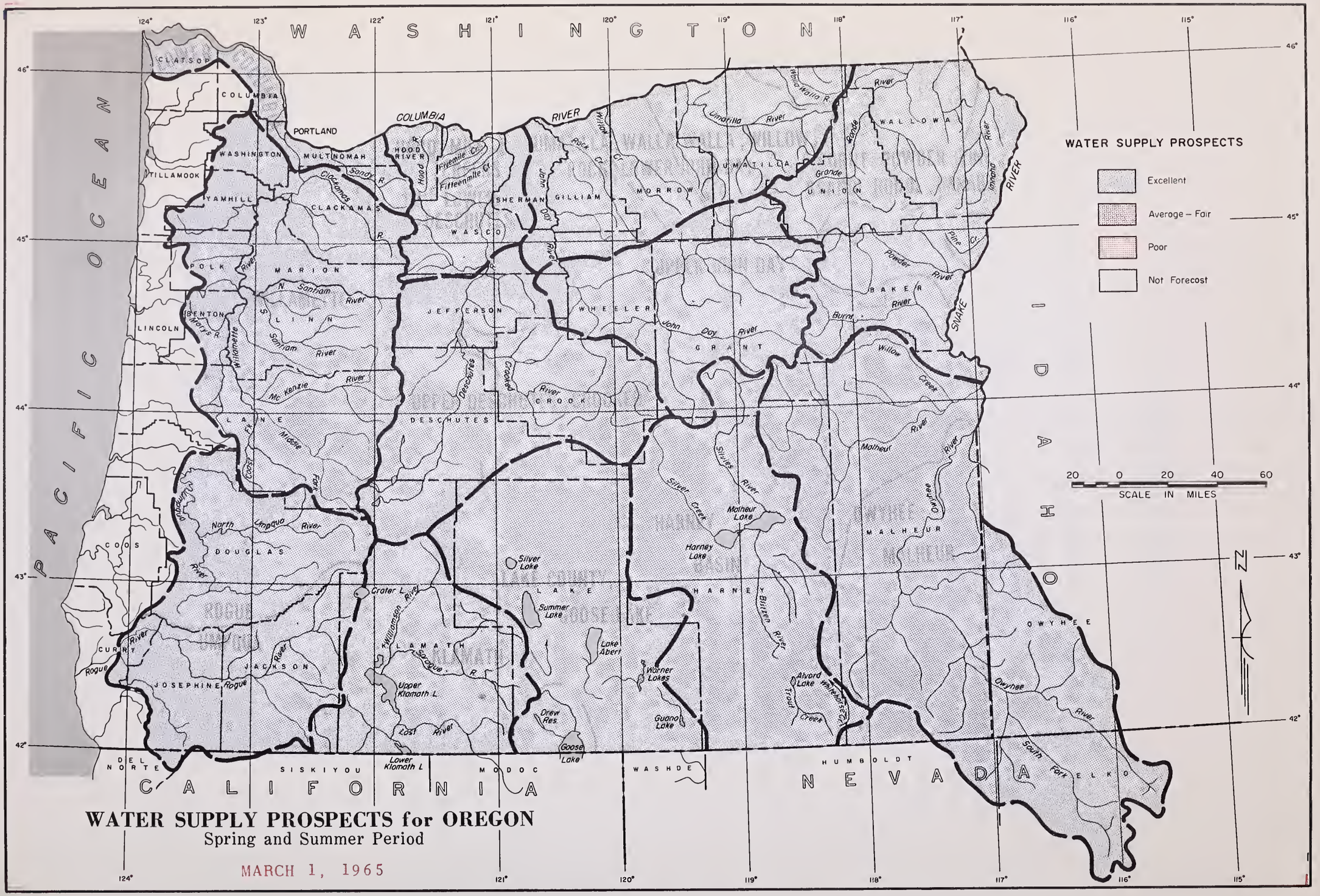


WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

MARCH 1, 1965

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

7-O-19102-1-L

WATER SUPPLY OUTLOOK for OREGON

MARCH 1, 1965

Oregon's irrigators will have excellent water supplies in 1965 - for many the best since 1958. Mountain snowpacks are now close to average snow accumulation usually measured on April 1; watershed soils are very close to saturation; and reservoirs are holding unusually large amounts of water for irrigation.

SNOW COVER

Water content of the mountain snowpack is generally above average with heaviest amounts present in the Wallowa, Grande Ronde, Powder, Burnt and John Day river watersheds where it averages 153 to 133 percent of the March 1 average.

Snowmelt alone can produce high flows on these streams but the addition of unusually amounts of rainfall would be needed to produce damaging floods in these watersheds.

SOIL MOISTURE

Watershed soils are very heavily wetted, actually approaching the saturation point in many areas. Runoff from snowmelt or rainfall will be greatly favored by these wet soils.

RESERVOIR STORAGE

Stored water in 25 Oregon reservoirs is now 132 percent of the 15 year, 1948-62, average and 171 percent of last year on March 1. Many of these reservoirs will fill before irrigation drawdown is begun.

STREAMFLOW

Flow of key Oregon streams* during February remained remarkably high in spite of a "dry" February. Inflow to Lake Owyhee was 273 percent average, John Day River, 254 percent, Umatilla, 208 percent and inflow to Klamath Lake was 189 percent. The flow of the Umpqua River fell off to 54 percent average last month.

Forecasts of expected streamflow in the 1965 irrigation season vary from slightly more than average flows west of the Cascade Mountains on up to 140-150 percent average on the Malheur, Burnt, John Day, Crooked, Silvies, Blitzen, Sprague, Chewaucan and Deep Creek in Warner Valley.

continued on next page --

continued --

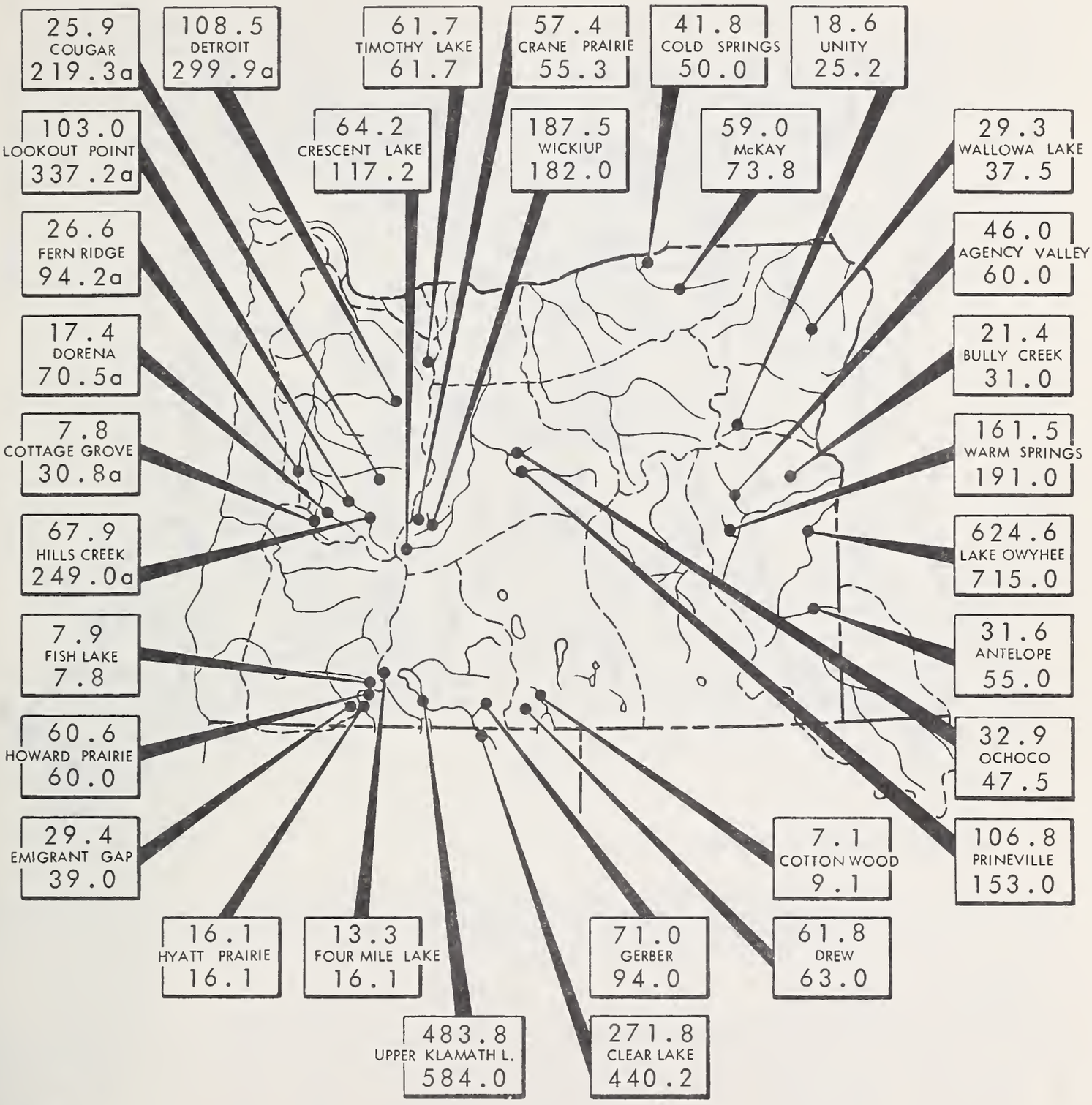
Late season flow of small streams is expected to "hold up" several weeks longer than usual because of excessive soil moisture conditions.

All forecasts are based on the assumption that average conditions of temperature and precipitation will prevail during the next 90 days.

*Preliminary data furnished by U. S. Geological Survey, Portland and many other co-operators.

STORAGE STATUS of OREGON RESERVOIRS
usuable contents in thousands of acre feet

MARCH 1, 1965



EXPLANATION

687.0
LAKE OWYHEE
715.0

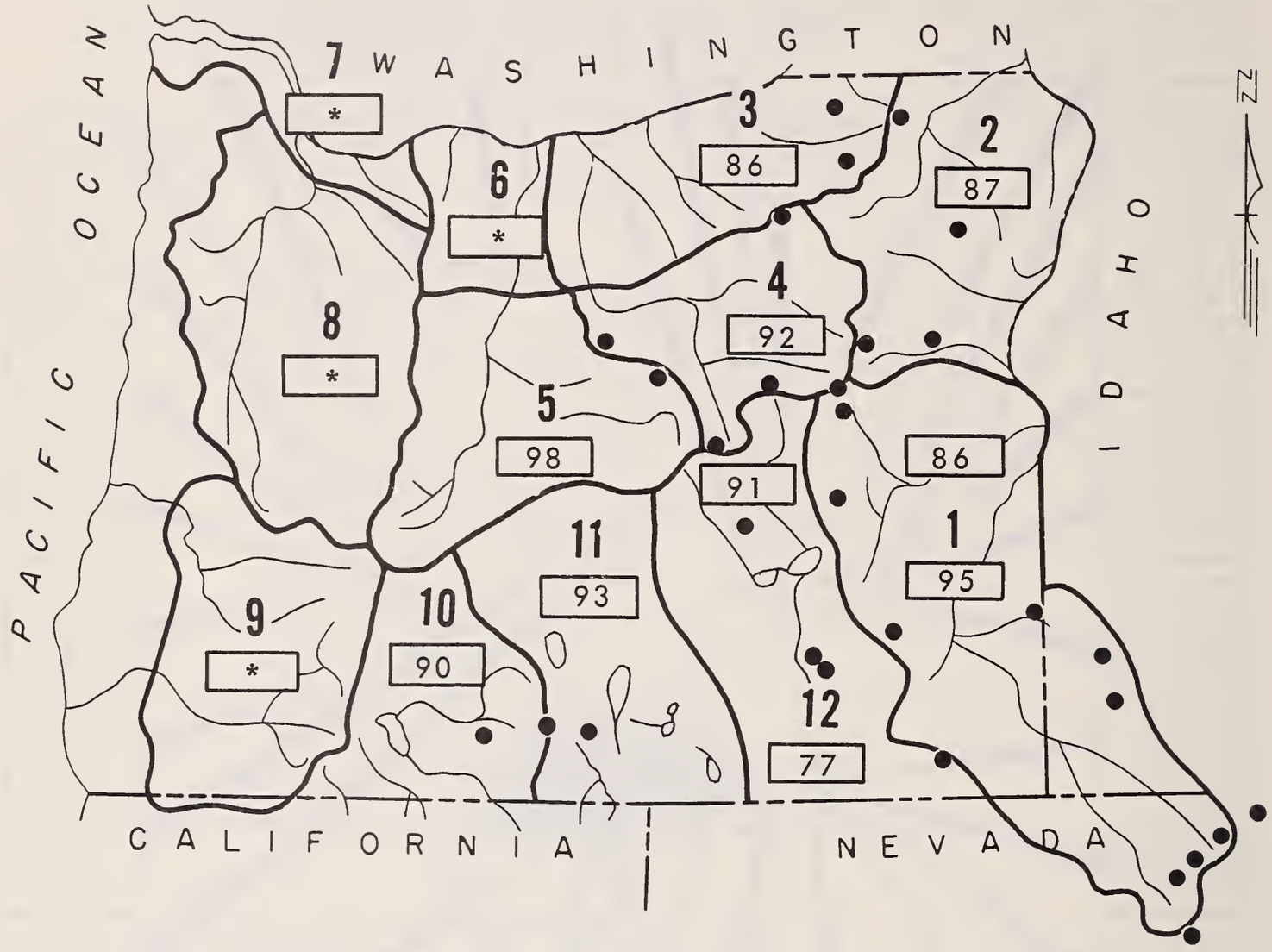
---Contents

---Capacity

(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

MOUNTAIN SOIL MOISTURE in OREGON
as percent of capacity

MARCH 1, 1965

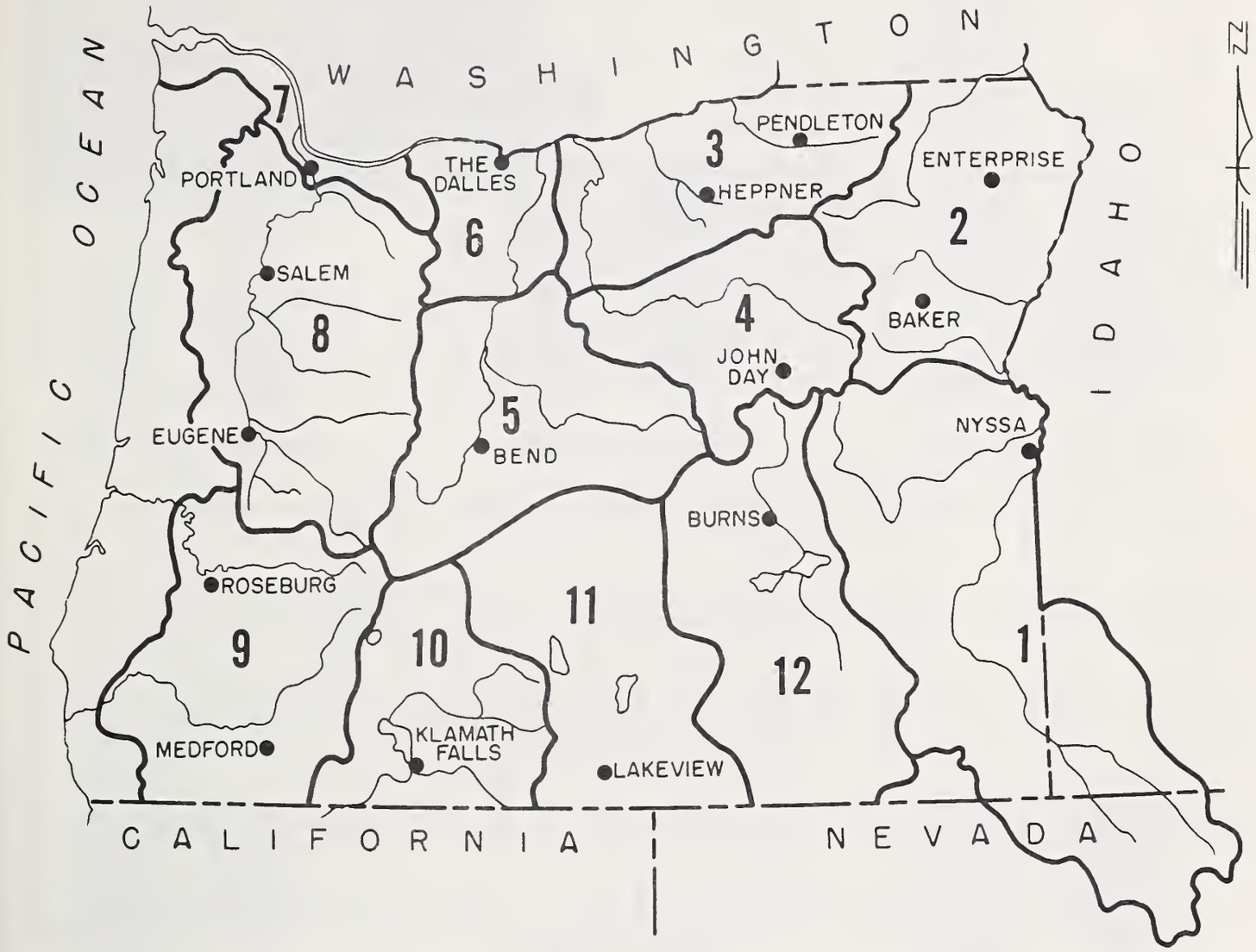


● Soil Moisture Station

**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON

MARCH 1, 1965

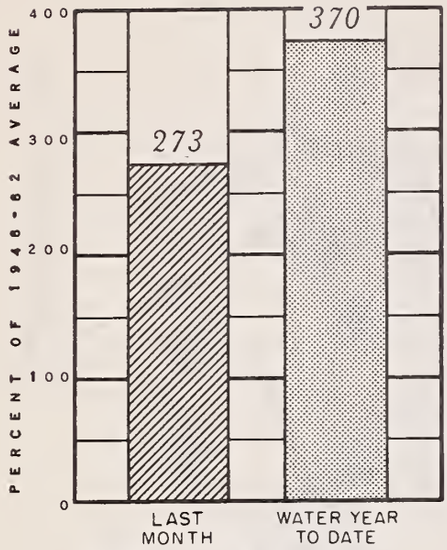


PRECIPITATION as PERCENT of the 1948-62 AVERAGE					
STATION	LAST MONTH	WATER YEAR TO DATE [b]	STATION	LAST MONTH	WATER YEAR TO DATE [b]
Baker Apt.	26	140	Lakeview	19	180
Bend	19	168	Meacham	85	155
Burns	18	163	Medford Apt.	26	167
Enterprise	56	148	Nyssa	5	129
Eugene Apt.	26	144	Pendleton Apt.	31	136
Heppner	15	136	Portland Apt.	45	106
John Day	30	135	Salem Apt.	26	106
Klamath Falls Apt.	5	150	The Dalles	20	148
			Owyhee (Nev.)	46	137

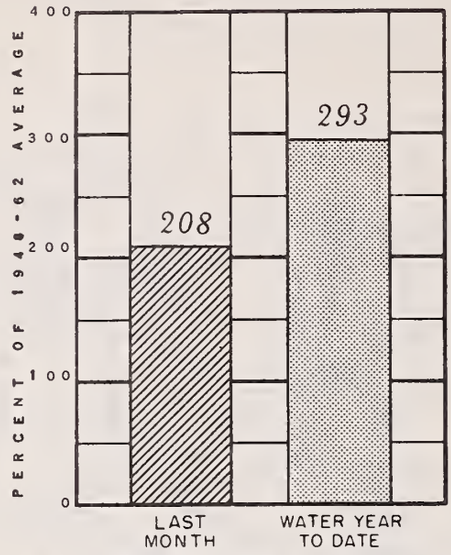
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

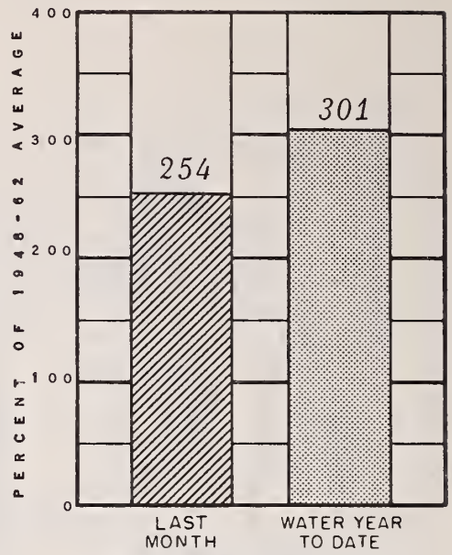
MARCH 1, 1965



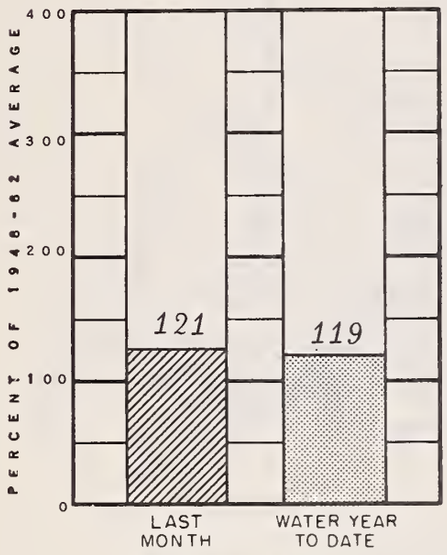
Owyhee Lake net inflow



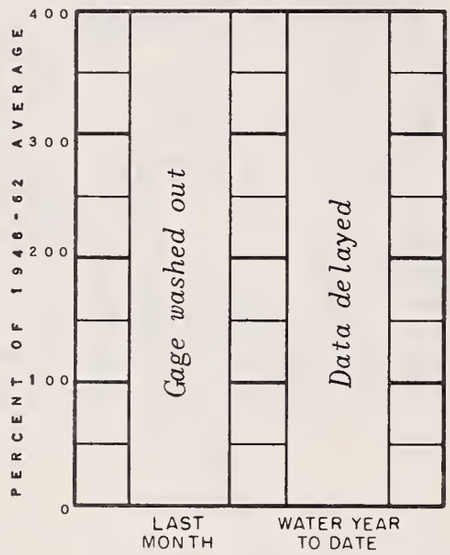
Umatilla near Umatilla



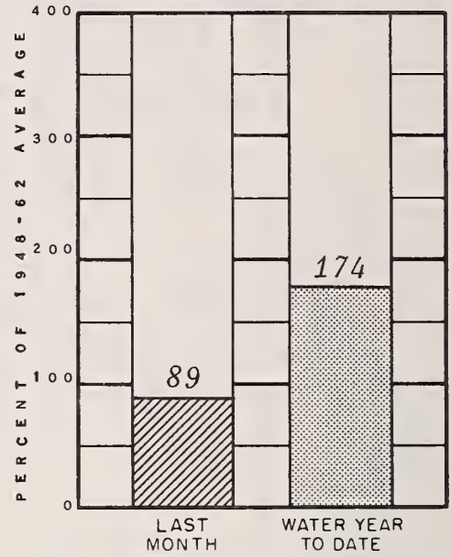
John Day at Service Creek



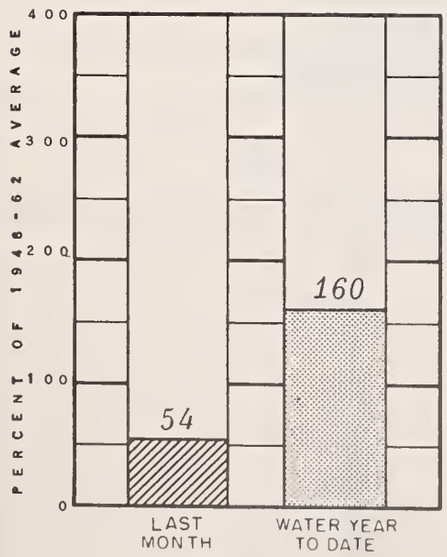
Deschutes at Moody



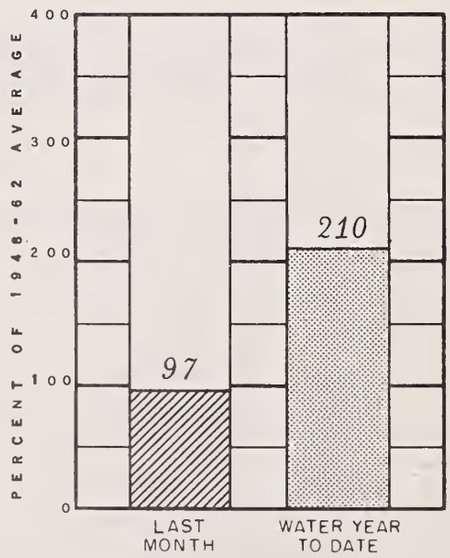
Hood and conduit near Hood River



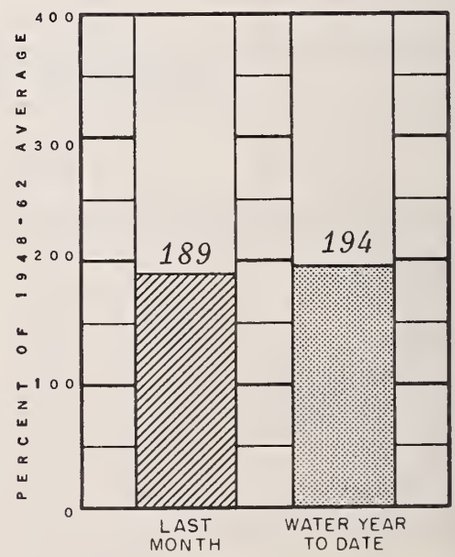
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.; and North and South Boards of Control Owyhee Project

WATER SUPPLY OUTLOOK
OWYHEE, MALHEUR WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK - Irrigators of Malheur county will have excellent water supplies in 1965 if average conditions of rainfall and temperature prevail for the next 90 days. The mountain snowpack failed to increase at the average rate in February but still contains enough water for an adequate runoff into reservoirs that now hold excellent water supplies.

SNOW COVER - Increase in the water content of the mountain snowpack during February was much below average and now totals 109 percent of the March 1 average on the Owyhee, 119 percent average on Jordan Creek, and 122 percent average on the Malheur watersheds.

SOIL MOISTURE - Watershed soils have had little change in their moisture and are wet up to 95 percent of capacity at the Owyhee moisture stations and 86 percent of capacity at the Malheur station.

RESERVOIR STORAGE - Lake Owyhee held about 624,600 acre feet on March 1 and was still being spilled to make space for inflow forecast to come. Adequate water is available for users from Lake Owyhee this year.

Antelope Reservoir now holds 31,560 acre feet and should fill easily with Jordan Creek forecast to flow 155,000 acre feet March through July.

Warmsprings, Agency Valley and Bully Creek reservoirs held a total of about 229,000 acre feet on March 1st compared with about 93,000 acre feet on this date last year. Water supplies look bright for the Vale Oregon and the Warmsprings Irrigation Districts.

STREAMFLOW - Malheur county streams had above average flows during February with inflow to Lake Owyhee better than two and one half times the average.

Forecast for the inflow to Lake Owyhee, April through September, is 460,000 acre feet or 121 percent average (1948-62).

Jordan Creek, as measured above Lone Tree Creek in Idaho, is forecast to flow a total of 155,000 acre feet or 132 percent average March through July.

Malheur River near Drewsey and the North Fork at Beulah are forecast to flow 130,000 and 102,000 acre feet, respectively, in the period April through September.

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1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek	Excellent	Average
Bully Creek	Excellent	Average
Cow Creek	Excellent	Average
Jordan Creek	Excellent	Average
Jordan Valley Irrig. Dist.	Excellent	Excellent
McDermitt Creek	Excellent	Average
Oregon Canyon Creek	Excellent	Average
Owyhee Project	Excellent	Excellent
Succor Creek	Excellent	Average
Tenmile Creek	Excellent	Average
Vale-Oregon Irrig. Dist.	Excellent	Excellent
Warmsprings Irrig. Dist.	Excellent	Excellent
Willow Creek (Reservoired)	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Agency Valley	60.0	46.0	26.1	29.3
Antelope	55.0	31.6	4.5	9.8[m]
Bully Creek	31.0	21.4	6.4	- -
Owyhee	715.0	624.6	302.7	410.4
Warmsprings	191.0	161.5	60.6	70.9

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	155	March-July	117	132
2140	Malheur near Drewsey	200	March-July	106	189
		130	April-Sept.	82	158
2175	Malheur, North Fork at Beulah[d]	130	March-July	72	180
		102	April-Sept.	65	157
1825	Owyhee Reservoir net Inflow[k]	685	March-July	466	147
		460	April-Sept.	381	121

SOIL MOISTURE

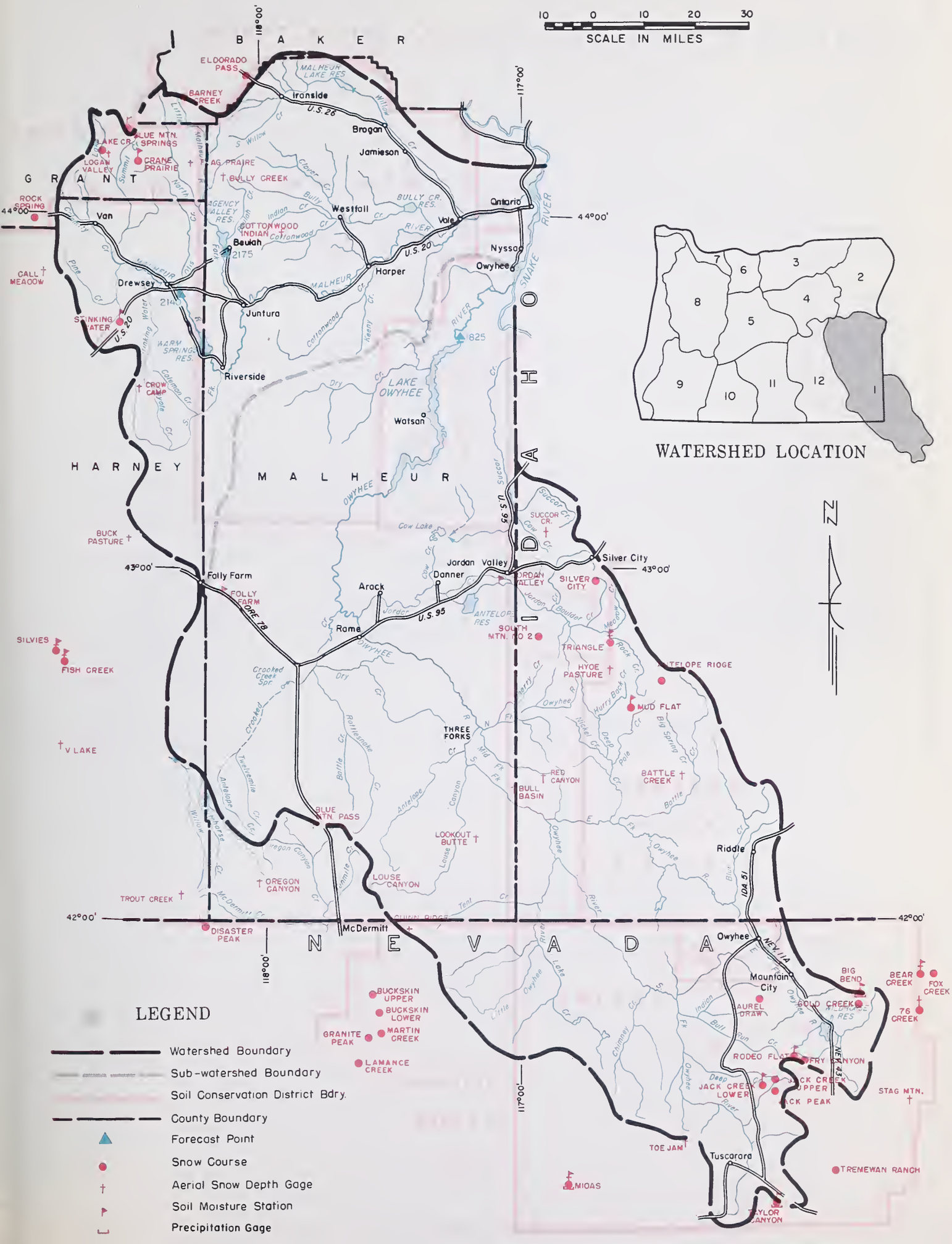
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bear Creek (Nev.)	7800	72	16.8	2-25-65	14.4	9.9	11.2
Big Bend (Nev.)	6700	48	16.7	2-24-65	16.5	15.7	14.8
Blue Mountain Springs	5900	42	16.9	2-24-65	12.6	7.4	13.5
Crane Prairie	5375	48	18.2	2-24-65	17.6	14.7	16.3
Folly Farm	4450	30	12.5	b			
Jack Creek, Lower (Nev.)	6800	48	8.6	b			
Jordan Valley	4250	48	19.3	b			
Mud Flat (Ida.)	5500	48	12.8	2-26-65	11.9	9.4[f]	11.0
Rodeo Flat (Nev.)	6800	42	11.0	2-24-65	11.0	10.4[f]	10.5
Stinking Water Summit	4800	48	21.9	b			
Taylor Canyon (Nev.)	6200	48	15.1	2-25-65	15.0	12.6[f]	12.4
Triangle (Ida.)	5150	48	16.6	2-26-65	15.9	11.5	14.0

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1948-62 AVERAGE
Antelope Ridge (Ida.)	5900	2/26	10	4.1	8.5	- -
Barney Creek	5950	2/25	35	13.3	6.8	7.5
Battle Creek[e] (Ida.)	5700	2/25	5	1.9	6.8	3.3[m]
Bear Creek (Nev.)	7800	2/25	70	24.5	12.8	16.6[h]
Big Bend (Nev.)	6700	2/24	24	7.4	8.5	8.5
Blue Mountain Springs	5900	2/24	58	21.9	12.9	15.8
Buck Pasture[e]	5700	2/25	0	0.0	6.1	- -
Buckskin, Lower (Nev.)	6700	2/25	18	7.3	6.9	8.5[h]
Buckskin, Upper (Nev.)	7200	2/25	20	8.4	5.5	7.9[h]
Bull Basin[e] (Ida.)	5600	2/25	T	T	1.6	- -
Bully Creek[e]	5300	2/25	4	1.4	3.5	3.7[m]
Call Meadow[e]	5340	2/25	4	1.4	3.5	- -
Columbia Basin[e] (Nev.)	6650	3/2	20	6.3	10.1	- -
Cottonwood-Indian[e]	4320	2/25	0	0.0	0.9	1.2[m]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



WATERSHED LOCATION

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1948-62 AVERAGE
Crane Prairie	5375	2/24	36	12.1	9.0	9.4
Crow Camp [e]	5500	2/25	T	T	2.9	- -
Disaster Peak (Nev.)	6500	3/2	29	13.3	13.1	14.6 [h]
Eldorado Pass	4600	2/26	5	1.8	4.9	3.0 [h]
Fawn Creek [e] (Nev.)	7000	3/2	1	0.3	- -	- -
Fish Creek	7900	2/24	74	33.0	21.5	- -
Flag Prairie [e]	4750	2/25	14	5.0	7.0	- -
Fox Creek (Nev.)	6800	2/25	37	11.8	10.2	9.4 [h]
Fry Canyon (Nev.)	6700	2/24	17	5.4	6.1	7.8
Gold Creek (Nev.)	6600	2/24	15	4.5	7.8	6.1 [h]
Granite Peak (Nev.)	7800	2/26	45	18.9	7.2	10.9
Hyde Pasture [e] (Ida.)	5800	2/25	9	3.4	7.8	4.4 [m]
Jack Creek, Lower (Nev.)	6800	c				
Jack Creek, Upper [e] (Nev.)	7250	3/2	22	6.8	10.0	9.5 [h]
Jacks Peak (Nev.)	8420	c				
Lake Creek	5120	2/24	38	12.8	9.7	10.5
Logan Valley [e]	5100	2/25	30	10.8	7.8	- -
Lookout Butte [e]	5650	2/25	0	0.0	0.0	- -
Louse Canyon [e]	6440	2/25	2	0.9	1.5	- -
Martin Creek (Nev.)	6700	2/25	25	10.4	6.6	8.9
Merritt Mountain [e] (Nev.)	7000	3/2	4	1.2	- -	- -
Midas [e] (Nev.)	7200	3/2	T	T	1.8	4.2 [h]
Mud Flat (Ida.)	5500	2/26	17	6.0	7.3	4.7
Oregon Canyon [e]	6950	2/25	8	3.7	6.0	- -
Quinn Ridge [e] (Nev.)	6300	2/25	0	0.0	2.1	- -
Red Canyon [e] (Ida.)	6500	2/25	14	5.3	7.3	- -
Rock Spring	5100	2/25	18	5.7	4.9	5.6
Rodeo Flat (Nev.)	6800	2/24	14	4.2	5.7	7.3
76 Creek [e] (Nev.)	7100	3/2	30	9.9	8.6	11.5 [h]
Silver City (Ida.)	6400	2/26	50	18.7	14.1	13.8 [h]
Silvies	6900	2/24	31	12.4	11.2	- -
South Mountain #2 (Ida.)	6340	2/26	32	12.6	12.0	10.6
Stinking Water	4800	Not surveyed				
Succor Creek [e] (Ida.)	6100	2/25	15	5.7	7.8	- -
Taylor Canyon (Nev.)	6200	2/25	12	4.4	4.6	4.6
Toe Jam [e] (Nev.)	7700	3/2	21	6.5	7.5	- -
Tremewan Ranch (Nev.)	5700	2/24	T	T	3.2	1.4
Triangle [e] (Ida.)	5150	2/25	T	T	2.8	0.7 [h]
Trout Creek [e]	7800	2/25	20	9.2	5.4	- -
"V" Lake [e]	6600	2/25	8	3.7	4.1	- -

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in Baker, Union and Wallowa counties will have adequate water supplies for the 1965 season. Mountain snowpacks are much above average in water content, watershed soils are very wet, reservoir water supplies are exceptionally good and streamflow forecasts are well above average.

SNOW COVER

Water content of the mountain snowpack is unusually heavy for March 1. On Burnt River it is 130 percent of the 1948-62 average; on the Powder it is 135 percent average; on the Wallowa River it is 153 percent and on the Grande Ronde 147 percent average.

SOIL MOISTURE

Watershed soils are very wet and will greatly favor runoff from melting snow and rainfall. Average soil moisture from three soil sites is 87 percent of the total capacity.

RESERVOIR STORAGE

Stored water in reservoirs is exceptionally good. Wallowa Lake has 29,315acre feet compared with 22,200 acre feet one year ago.

Similarly, Unity Reservoir has 18,558 acre feet in storage compared with 11,000 acre feet last year on March 1. Thief Valley reservoir is reported full.

STREAMFLOW

Forecasts of streamflow for the irrigation season, April through September, are well above the 1948-62 average and are as follows: Burnt River, 139 percent average; Powder River, 130 percent average; Catherine Creek, 130 percent; Grande Ronde River, 122 percent; Imnaha River, 135 percent; the Wallowa tributaries, Bear Creek and Hurricane, 117 percent; Lostine River, 122 percent; and East Fork Wallowa, 125 percent of average.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope	Excellent	Average
Baker Valley	Excellent	Average
Big Creek	Excellent	Average
Clover Cr. (nr. N. Powder)	Excellent	Average
Cove	Excellent	Average
Durkee	Excellent	Average
Eagle Valley	Excellent	Average
Elgin	Excellent	Average
Enterprise-Joseph	Excellent	Excellent
Hereford-Bridgeport	Excellent	Excellent
Imnaha River	Excellent	Average
LaGrande-Island City	Excellent	Average
Lostine-Wallowa	Excellent	Average
No. Powder River-Wolf Cr.	Excellent	Average
Pine Valley	Excellent	Average
Powder River-Elk Creek	Excellent	Average
Summerville	Excellent	Average
Sumpter Valley	Excellent	Average
Union-Hot Lake	Excellent	Average
Unity	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Unity	25.2	18.6	11.0	9.4
Wallowa Lake	37.5	29.3	22.2	18.0

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

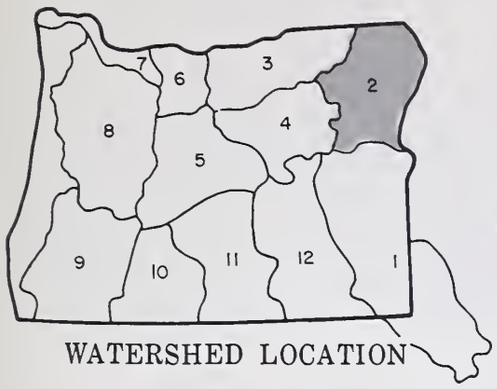
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3305	Bear near Wallowa	84	April-Sept.	72	117
2730	Burnt near Hereford[d]	70	March-June	49	143
		57	April-Sept.	41	139
3200	Catherine near Union	95	April-Sept.	73	130
3190	Grande Ronde at LaGrande	300	March-Sept.	246	122
		248	April-Sept.	203	122
3295	Hurricane near Joseph	56	April-Sept.	48	117
2920	Imnaha at Imnaha	430	April-Sept.	318	135
3300	Lostine near Lostine	160	April-Sept.	131	122
2755	Powder near Baker	85	April-July	66	129
		87	April-Sept.	67	130
3250	Wallowa, East Fork near Joseph[d]	15.5	March-Sept.	12.7	121
		15.0	April-Sept.	12.0	125

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mountain Summit	5100	36	16.8	2-26-65	14.5	9.6	13.0
Emigrant Springs	3925	48	22.3	2-24-65	21.0	20.3	20.7
Tollgate	5070	48	23.6	2-26-65	19.0	19.2	21.4

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Aerial Snow Depth Gage
- Precipitation Gage

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) 1948-62 AVERAGE
Aneroid Lake #1	7480	2/24	125	48.0	25.5	32.6
Aneroid Lake #2	7300	2/24	103	41.0	21.8	25.4
Anthony Lake	7125	2/23	108	38.9	22.1	23.6
Bald Mountain[e] (Ore.)	6700	3/1	70	25.9	23.7	- -
Barney Creek	5950	2/25	35	13.3	6.8	7.5
Beaver Reservoir	5340	2/23	40	11.9	9.9	10.1
Big Sheep[e]	6200	2/24	84	31.1	24.5	- -
Blue Mountain Summit	5098	2/26	31	11.1	8.8	8.3
Bourne	5800	2/24	63	22.2	12.2	15.8
Clover Creek	4100	b				
County Line	4800	2/26	24	8.8	6.0	7.0[h]
Dooley Mountain	5430	2/25	31	11.6	8.1	8.6
Eilertson Meadows	5400	2/23	41	14.9	9.8	10.8[h]
Eldorado Pass	4600	2/26	5	1.8	4.9	3.0[h]
Gold Center	5340	2/24	45	14.6	10.5	12.5
Goodrich Lake	6775	Report delayed				
Intake House	4930	2/23	45	14.0	- -	- -
Little Alps	6200	2/23	61	17.8	10.7	- -
Lucky Strike	5050	2/25	53	17.5	10.6	11.8[h]
Meacham	4300	2/24	41	13.5	11.7	9.1
Mirror Lake[e]	8200	2/24	211	78.1	56.8	- -
Moss Spring	5850	2/24	84	27.8	19.9	21.6
Power Plant	3990	2/23	27	9.0	- -	- -
Schneider Meadows	5400	2/24	87	33.3	25.3	29.2[h]
Schoolmarm	4775	2/25	18	6.4	5.8	5.9[h]
Standley	7400	2/24	79	31.0	28.2	- -
Taylor Green	5740	2/24	58	20.7	11.8	- -[h]
Tipton	5100	2/26	35	12.3	10.8	10.0
Tollgate	5070	2/26	71	26.4	29.1	25.1
TV Ridge[e]	7000	2/24	60	22.2	*	*

*Station moved--old data not comparable.

"The Conservation of Water begins with the Snow Survey"

Area 3

WATER SUPPLY OUTLOOK
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in Umatilla, Morrow and Gilliam counties will have adequate water supplies in 1965 if average conditions of rainfall and temperature prevail for the next 90 days. The mountain snowpack is above average but not so much of a threat as one month ago. Soils are slightly drier but still very wet and reservoirs contain satisfactory amounts of stored water.

SNOW COVER

Water content of the mountain snowpack failed to accumulate the usual February amounts but still holds a satisfactory supply -- 124 percent of the 1948-62 average on Umatilla watersheds, 136 percent average on the McKay tributary and 105 percent on the Walla Walla.

SOIL MOISTURE

Watershed soils have dried somewhat but are still wet up to 86 percent of capacity. These data are summarized from 4 local soil sites.

RESERVOIR STORAGE

Cold Springs Reservoir now holds 41,800 acre feet for the Hermiston Irrigation District and should fill easily from streamflow now coming. McKay Reservoir contains 59,000 acre feet compared with 16,000 acre feet at this date last year and should fill before irrigation drawdown begins.

STREAMFLOW

Flow of the Umatilla* during February was more than double the average.

Forecasts of flow for the irrigation season, April 1 through September 30, are all above the average or the 1948-62 period but should not produce damaging spring flows unless unusually heavy rainfall occurs during snowmelt season.

Flow of the South Fork of the Walla Walla, April through September, is expected to be 80,000 acre feet or 105 percent average.

Flow of the Umatilla River at Pendleton is forecast at 217,000 acre feet or 119 percent of the average.

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McKay Creek is forecast to flow 40,000 acre feet or 125 percent average. However, for the March-July period the flow is expected to be 64,000 acre feet.

Flow of Butter Creek is forecast at 16,600 acre feet or 114 percent average for the March-July period.

*Preliminary data from U. S. Geological Survey, Portland, Oregon.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Birch Creek	Excellent	Average
Butter Creek	Excellent	Average
Dry Creek	Average	Average
Dugger Creek	Average	Average
Johnson Creek	Average	Average
McKay Creek	Excellent	Average
Mill Creek	Average	Average
Mud Creek	Average	Average
Pine Creek	Average	Average
Rhea Creek	Excellent	Average
Rock Creek	Excellent	Average
Umatilla R. (Cold Springs Reservoir)	Excellent	Average
Umatilla River, Main	Excellent	Average
Umatilla River (McKay Res.)	Excellent	Average
Walla Walla River, Little	Average	Average
Walla Walla River, Main	Average	Average
Walla Walla River, No. Fk.	Average	Average
Walla Walla River, So. Fk.	Average	Average
Willow Creek	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cold Springs	50.0	41.8	50.0	39.9
McKay	73.8	59.0	16.0	41.0

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0320	Butter Creek near Pine City	16.6	March-July	14.5	114
0225	McKay near Pilot Rock	64	March-July	49	130
		40	April-Sept.	32	125
0200	Umatilla near Gibbon	142	March-Sept.	116	122
		110	April-Sept.	93	118
0210	Umatilla at Pendleton	278	March-Sept.	247	112
		217	April-Sept.	183	119
0100	Walla Walla, South Fork near Milton	95	March-Sept.	89	107
		80	April-Sept.	76	105

SOIL MOISTURE

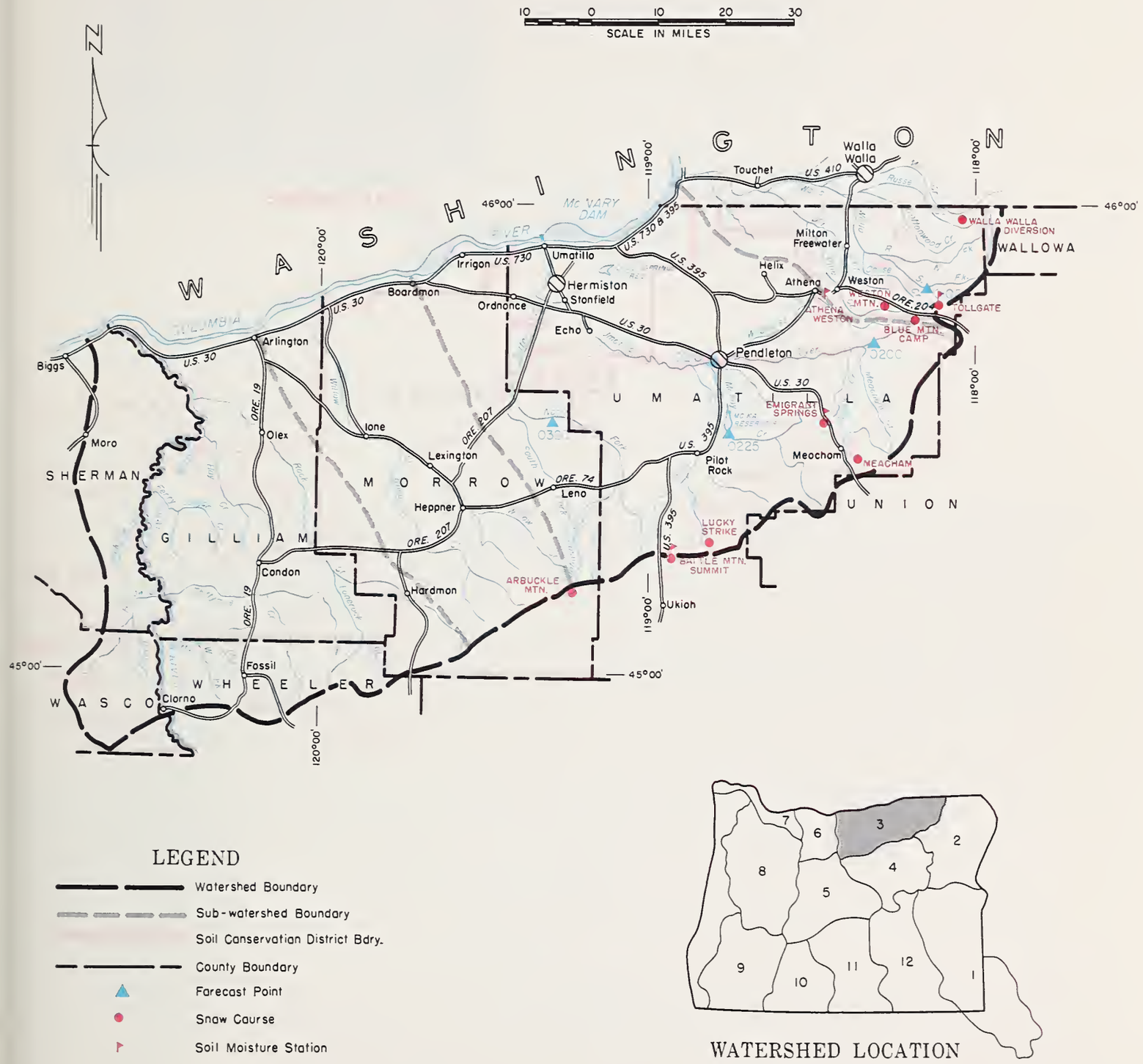
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Athena-Weston	1700	48	18.7	2-26-65	14.0	13.3	15.8
Battle Mountain Summit	4340	48	13.8	2-25-65	13.8	12.7	13.4
Emigrant Springs	3925	48	22.3	2-24-65	21.0	20.3	20.7
Tollgate	5070	48	23.6	2-26-65	19.0	19.2	21.4

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1948-62 AVERAGE
Arbuckle Mountain	5400	2/23	40	14.7	10.3	10.9[h]
Battle Mountain Summit	4340	2/25	9	2.5	2.6	2.4[m]
Blue Mountain Camp	4300	2/26	42	15.6	20.0	- -
Emigrant Springs	3925	2/24	17	5.3	8.9	6.2
Lucky Strike	5050	2/25	53	17.5	10.6	11.8[h]
Meacham	4300	2/24	41	13.5	11.7	9.1
Tollgate	5070	2/26	71	26.4	29.1	25.1
Weston Mountain	2700	2/26	0	0.0	0.0	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station

WATERSHED LOCATION

WATER SUPPLY OUTLOOK
UPPER JOHN DAY WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The 1965 water supply outlook in the John Day Basin is excellent. Although February storms did not produce average precipitation the snowpack is still well above average. Soils are well primed and will aid spring runoff.

SNOW COVER

Snow measurements taken just prior to March 1 indicate a heavy snow cover still remains on the John Day watershed. Even though February precipitation was only about 30 percent of normal at lower elevations, water content of the snowpack is still 133 percent of the 1948-62 March 1 average.

SOIL MOISTURE

Watershed soils are now 92 percent of total capacity and will aid in spring and summer runoff.

STREAMFLOW

Flow of the John Day in February was about two and one half times the average for the month according to the U. S. Geological Survey.

The John Day at Prairie City is forecast to flow 74,000 acre feet or 145 percent of average for the April-September period.

The Middle Fork at Ritter is expected to flow 190,000 acre feet or 145,000 percent of average for the same period.

These flows will compare closely with 1958 flows on the John Day and not quite as high as 1948 if normal temperature and precipitation occurs during the remainder of the season.

Strawberry Creek is forecast to flow 11,000 acre feet or 125 percent of average.

Smaller streams are expected to hold up well and run later in the season than usual as a result of good snowpack and abundant soil moisture.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Beech Creek	Excellent	Average
Beech Creek-Fox-Long Cr.	Excellent	Average
Bridge-Mountain Creeks	Excellent	Average
Camas Creek	Excellent	Average
Indian-Pine Creeks	Excellent	Average
John Day River, Main Fork	Excellent	Average
John Day River, Mid. Fork	Excellent	Average
John Day River, N. Fork	Excellent	Average
John Day River, S. Fork	Excellent	Average
Monument-Kimberly	Excellent	Average
Strawberry Creek	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0385	John Day at Prairie City	81	March-July	56	145
		74	April-Sept.	51	145
0440	John Day, Middle Fork at Ritter	226	March-July	153	148
		190	April-Sept.	131	145
0375	Strawberry near Prairie City	10.3	March-July	8.2	126
		11.0	April-Sept.	8.8	125

SOIL MOISTURE

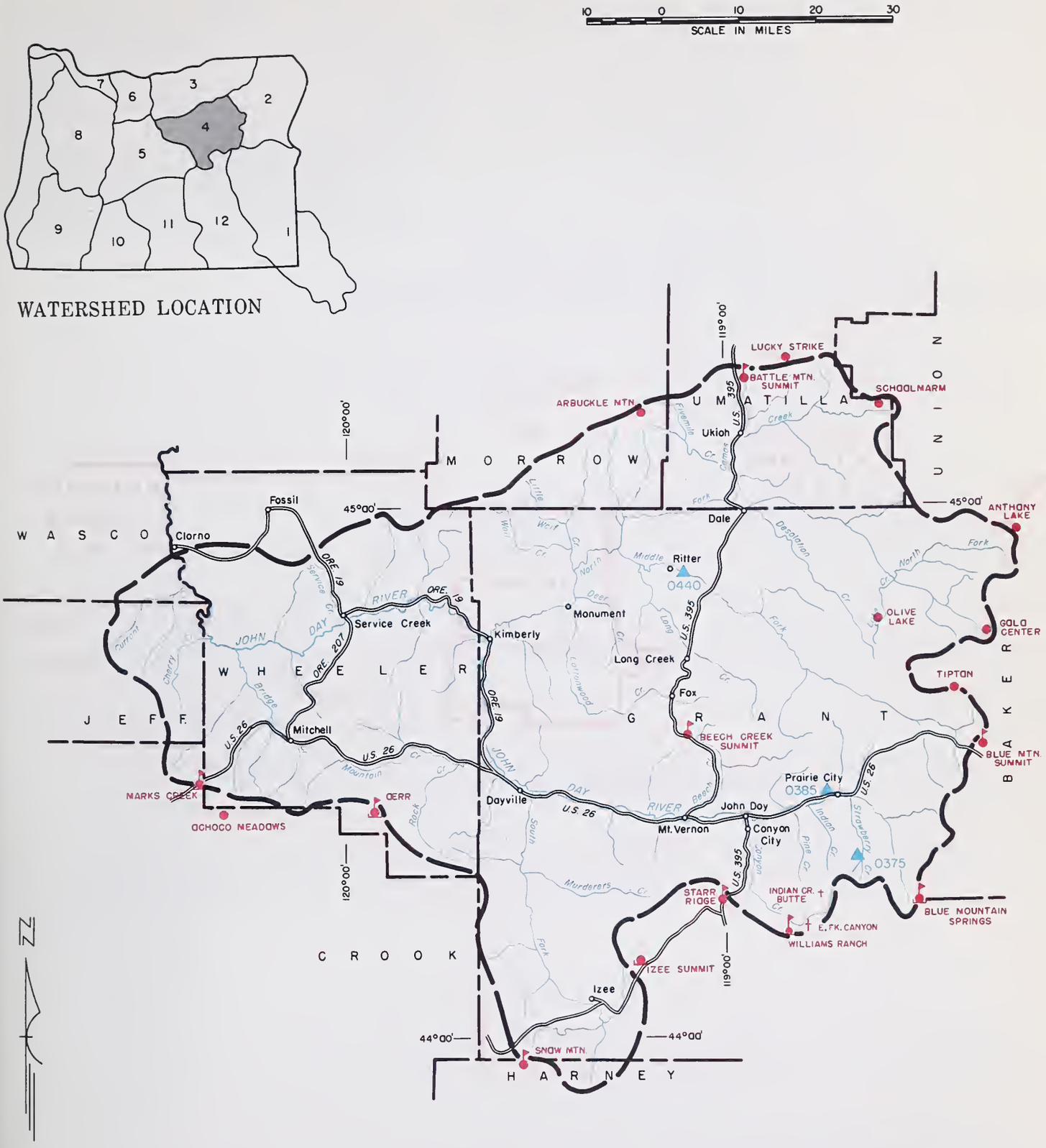
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Battle Mountain Summit	4340	48	13.8	2-25-65	13.8	12.7	13.4
Blue Mountain Springs	5900	42	16.9	2-24-65	12.6	7.4	13.5
Blue Mountain Summit	5100	36	16.8	2-26-65	14.5	9.6	13.0
Derr	5670	24	9.0	3-3-65	8.9	- -	- -
Marks Creek	4540	36	14.1	2-26-65	13.7	9.2	11.9
Snow Mountain	6300	48	16.7	2-26-65	16.5	12.3	14.8
Starr Ridge	5150	36	10.6	2-25-65	10.4	8.3	10.5

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	1948-62 AVERAGE
Anthony Lake	7125	2/23	108	38.9	22.1	23.6
Arbuckle Mountain	5400	2/23	40	14.7	10.3	10.9[h]
Battle Mountain Summit	4340	2/25	9	2.5	2.6	2.4[m]
Beech Creek Summit	4800	2/25	13	4.9	4.8	5.6
Blue Mountain Springs	5900	2/24	58	21.9	12.9	15.8
Blue Mountain Summit	5098	2/26	31	11.1	8.8	8.3
Derr	5670	2/24	39	15.2	9.4	9.6[h]
East Fork Canyon[e]	5700	2/24	41	15.2	11.5	- -
Gold Center	5340	2/24	45	14.6	10.5	12.5
Indian Creek Butte[e]	6550	2/24	84	31.1	19.2	- -
Izee Summit	5293	2/25	26	8.5	7.1	8.0
Lucky Strike	5050	2/25	53	17.5	10.6	11.8[h]
Marks Creek	4540	2/26	7	2.5	4.8	3.7
Ochoco Meadows	5200	2/27	26	9.2	8.1	10.1
Olive Lake	6000	2/25	76	27.5	16.8	18.3
Schoolmarm	4775	2/25	18	6.4	5.8	5.9[h]
Snow Mountain	6300	2/26	44	16.6	10.5	- -
Starr Ridge	5150	2/25	23	8.0	5.2	5.6
Tipton	5100	2/26	35	12.3	10.8	10.0[h]
Williams Ranch	4500	2/25	0	0.0	3.5	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Aeriol Snow Depth Gage
- Precipitation Gage

OR-4c

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in the Deschutes and Crooked River watersheds will have excellent water supplies in 1965. Above average water in the mountain snowpack, coupled with wet watershed soils and excellent stored water, make the picture a bright one for this year.

SNOW COVER

Water content of the mountain snowpack failed to gain normally during the dry February but because of heavy accumulations in earlier months remains about 111 percent of the March 1 average on the Crooked and 112 percent average on the Deschutes.

SOIL MOISTURE

Watershed soils are very wet and measurements at selected sites indicate 98 percent of the capacity.

RESERVOIR STORAGE

Stored water supplies on Crooked River watersheds are excellent -- Ochoco reservoir held 32,930 acre feet and Prineville Reservoir 106,814 acre feet on March 1 this year.

On the upper Deschutes River stored water on March 1 was 57,397 acre feet in Crane Prairie, 64,250 acre feet in Crescent Lake, and 187,532 acre feet in Wickiup Reservoir -- all well above last year's figures.

STREAMFLOW

February flow of the Deschutes at Moody* was 121 percent of average.

Forecasts of streamflow for the 1965 irrigation season, April through September are 119 percent average (1948-62) for the Deschutes at Benham Falls; 142 percent for Little Deschutes near Lapine. The March-July flow of the Little Deschutes is forecast at 180,000 acre feet or 157 percent average.

Tumalo and Squaw Creeks are forecast to flow 59,000 and 63,000 acre feet respectively in the April through September period. These flows would be 109 and 112 percent average.

Crooked River near Post is forecast at 179,000 acre feet or 143 percent and Ochoco Reservoir inflow at 38,000 acre feet or 120 percent average for the April-September period.

* Preliminary data from U. S. Geological Survey, Portland, Oregon.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District	Excellent	Excellent
Bear Creek	Excellent	Average
Beaver Creek	Excellent	Average
Camp Creek	Excellent	Average
Central Ore. Irrig. Dist.	Excellent	Excellent
Crooked River	Excellent	Average
Deschutes River	Excellent	Excellent
Hay-Trout Creeks	Excellent	Average
Lone Pine Irrig. Dist.	Excellent	Excellent
Mill Creek	Excellent	Average
North Unit Irrig. Dist.	Excellent	Excellent
Ochoco Creek	Excellent	Average
Sisters Irrigation Dist.	Excellent	Average
Snow Creek Irrig. Dist.	Excellent	Average
Squaw Creek Irrig. Dist.	Excellent	Average
Swalley Ditch	Excellent	Excellent
Tumalo Project	Excellent	Excellent
Walker Basin Irrig. Dist.	Excellent	Excellent

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Crane Prairie	55.3	57.4	40.3	45.3
Crescent Lake	117.2	64.2	48.8	51.1
Ochoco	47.5	32.9	25.3	26.6
Prineville	153.0	106.8	97.3	- -
Wickiup	182.0	187.5	167.0	176.9

Note: Current storage figure for Crescent Lake includes 5360 acre feet of known dead and inactive storage.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) As of March 1, 1965

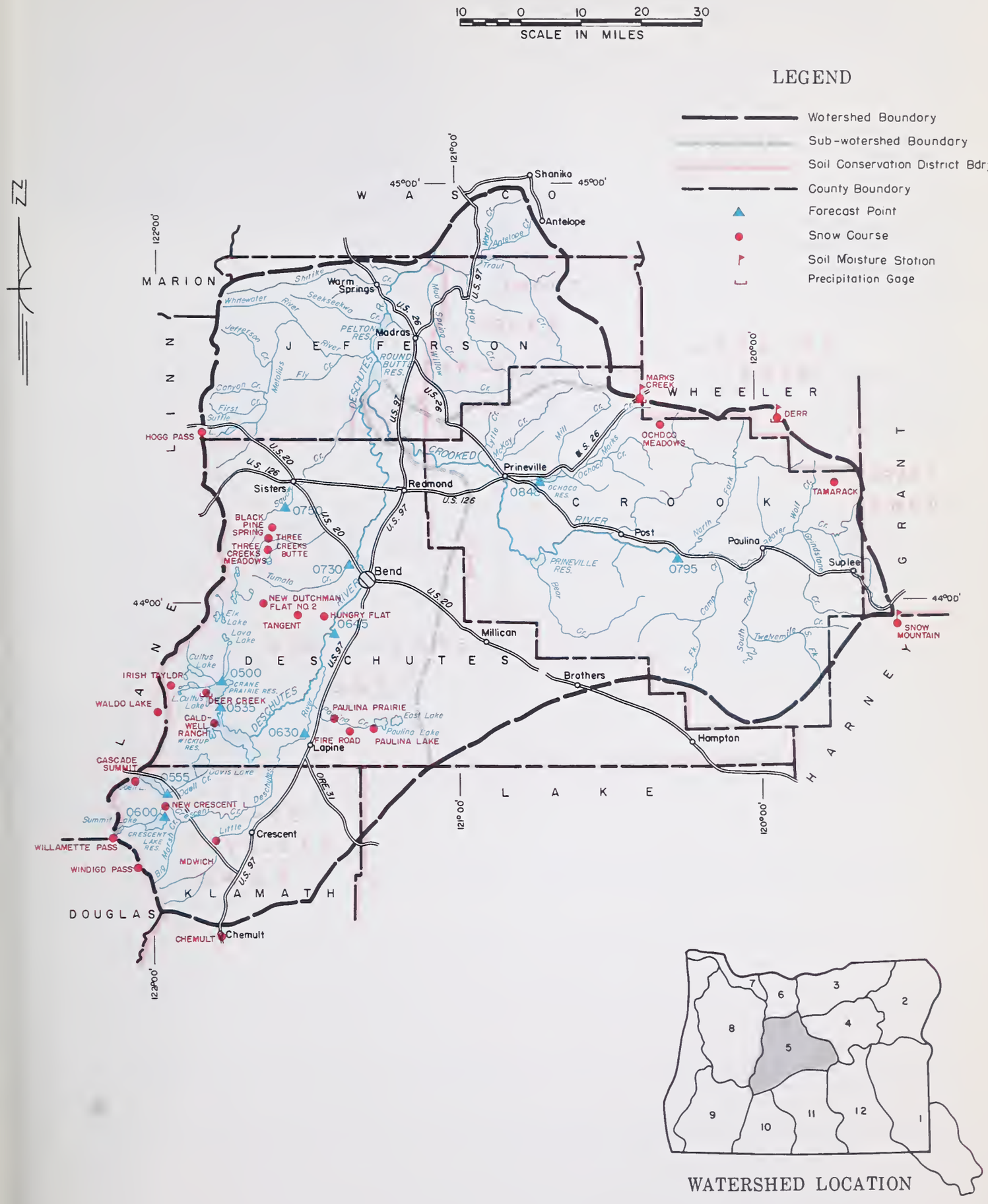
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
0535	Crane Prairie Reservoir total Inflow	160	April-Sept.	143	112
0600	Crescent at Crescent Lake[d]	38	March-July	30	127
		40	April-Sept.	33	121
0795	Crooked near Post	246	March-July	169	146
		179	April-Sept.	125	143
0645	Deschutes at Benham Falls[d]	465	April-July	417	112
		700	April-Sept.	631	111
0500	Deschutes below Snow Creek	110	March-Sept.	82	134
		100	April-Sept.	75	133
0630	Deschutes, Little near Lapine[d]	180	March-July	115	157
		150	April-Sept.	113	133
0848	Ochoco Reservoir net Inflow	53	March-July	42	126
		38	April-Sept.	32	120
0555	Odell near Crescent	36	April-Sept.	34	106
0750	Squaw near Sisters	63	April-Sept.	56	112
0730	Tumalo near Bend[d]	59	April-Sept.	54	109

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Derr	5670	24	9.0	3-3-65	8.9	- -	- -
Marks Creek	4540	36	14.1	2-26-65	13.7	9.2	11.9
Snow Mountain	6300	48	16.7	2-26-65	16.5	12.3	14.8

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Black Pine Spring	4600	3/1	0	0.0	3.4	5.0[h]
Caldwell Ranch	4400	2/25	24	10.1	10.5	- -
Cascade Summit	4880	2/26	77	33.4	26.0	28.9
Chemult	4760	2/25	29	11.4	9.0	11.4
Deer Creek	4554	2/25	56	21.7	- -	- -
Derr	5670	2/24	39	15.2	9.4	9.6[h]
Fire Road	5050	3/2	25	10.4	6.6	6.5[h]
Hogg Pass	4755	2/25	99	42.3	35.0	39.4
Hungry Flat	4400	2/26	0	0.0	6.4	6.3[h]
Irish-Taylor	5500	2/25	97	40.8	34.6	- -
Marks Creek	4540	2/26	7	2.5	4.8	3.7
Mowich	4700	2/24	5	2.2	4.2	5.4[h]
New Crescent Lake	4800	2/23	39	14.6	14.8	15.7[h]
New Dutchman Flat #2	6400	2/26	137	61.2	43.9	46.8
Ochoco Meadows	5200	2/27	26	9.2	8.1	10.1
Paulina Lake	6330	3/2	72	28.5	16.5	18.7[h]
Paulina Prairie	4285	3/2	0	0.0	3.6	1.1[h]
Snow Mountain	6300	2/26	44	16.6	10.5	- -
Tamarack	4800	2/25	18	5.8	5.7	5.8
Tangent	5400	2/26	67	26.8	19.2	22.1[h]
Three Creeks Meadows	5650	3/1	53	20.3	17.6	19.9
Waldo Lake	5500	2/25	82	33.2	27.1	- -
Willamette Pass	5600	2/23	97	40.9	36.7	37.7[h]
Windigo Pass	5800	2/24	111	49.1	36.9	39.3[h]

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The 1965 water supply outlook in Hood River and Wasco counties is still "very good" although February storms did not produce average amounts of snow in the mountains. Watershed soils are very wet and reservoir storage is above average.

SNOW COVER

Water content of the snowpack increased at only the higher elevations during February and these increases were less than the average for the 1948-62 period. March 1 surveys indicate 110 percent of average snow water and 102 percent of last year at this time.

SOIL MOISTURE

Watershed soils are well wetted although a dry February allowed some loss of moisture at lower elevations.

RESERVOIR STORAGE

Clear Lake Reservoir now holds about 6,000 acre feet or about 4 times as much as last year at this time and about half of the total capacity.

STREAMFLOW

Current streamflow records are still not available due to the gage being washed out on Hood River. Streamflow forecasts indicate adequate irrigation water for this spring and summer.

Flow of Hood River West Fork near Dee is expected to be 197,000 acre feet or 110 percent of the 1948-62 average for the April through September period.

The main river near Hood River is forecast to flow 420,000 acre feet or 110 percent for the same period.

White River is expected to flow 220,000 acre feet or 125 percent of average for the April-September period.

Smaller streams such as Mill and Mile creeks are expected to run slightly above average this season.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch	Average	Average
Badger Creek	Average	Average
Dee Irrigation District	Average	Average
East Fork Irrig. Dist.	Average	Average
Farmers Irrig. Dist.	Average	Average
Hood River Irrig. Dist.	Average	Average
Juniper Flat	Average	Average
Middle Fork Irrig. Dist.	Average	Average
Mile Creeks	Average	Average
Mill Creek	Average	Average
Mount Hood Irrig. Dist.	Average	Average
Rock-Gate-Threemile Crs.	Average	Average
Tygh Creek	Average	Average
White River	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	11.8	6.0	1.5	- -

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

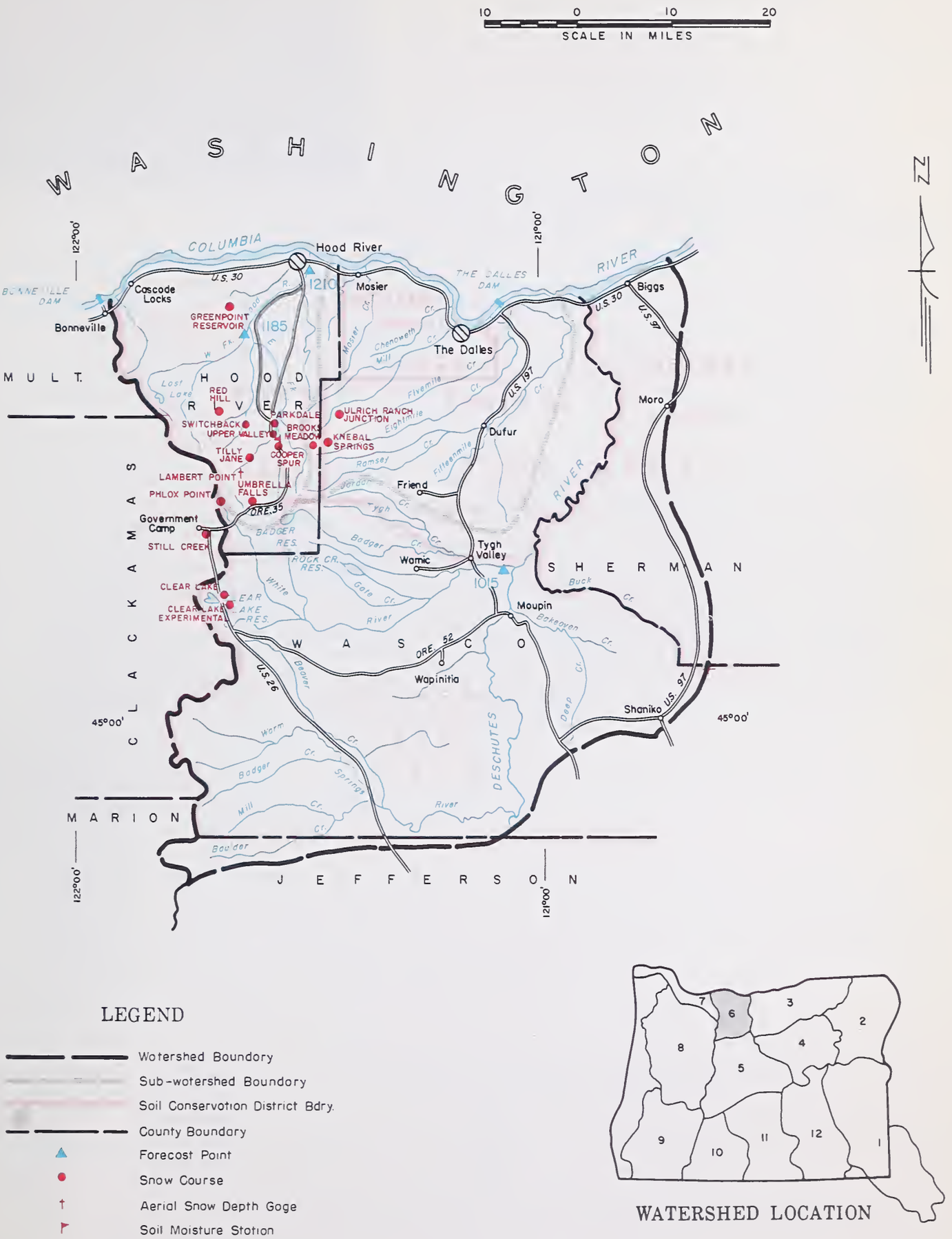
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
1210	Hood near Hood River[d]	535	March-Sept.	477	112
		420	April-Sept.	381	110
1185	Hood, West Fork near Dee	250	March-Sept.	222	113
		197	April-Sept.	179	110
1015	White below Tygh Valley	200	April-July	158	127
		220	April-Sept.	176	125

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) 1948-62 AVERAGE
Brooks Meadows	4300	3/1	20	8.4	12.0	- -
Clear Lake	3500	2/26	30	11.5	8.4	11.9
Clear Lake (Experimental)	3500	2/26	48	19.0	14.6	8.3[m]
Cooper Spur	3490	c				
Greenpoint Reservoir	3400	2/28	51	19.9	14.3	15.1[h]
Knebal Springs	3850	3/1	24	8.8	8.7	- -
Lambert Point[e]	7000	b				
Parkdale	1770	c				
Phlox Point	5600	2/28	135	59.0	59.0	57.1
Red Hill	4400	2/24	91	37.7	39.0	40.4
Still Creek	3700	2/26	58	23.1	24.8	23.0
Switchback	3255	3/1	31	10.9	16.0	- -
Tilly Jane	6000	2/28	101	43.8	36.9	38.7
Ulrich Ranch Junction	3350	3/1	3	1.2	4.8	- -
Umbrella Falls	5400	report	delayed			
Upper Valley	2530	c				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station

WATERSHED LOCATION

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
LOWER COLUMBIA WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Water supply outlook continues to be good throughout the Columbia Basin for both irrigation and power for 1965. On the Snake River and its tributaries in southern and southeastern Idaho, problems in disposal of water from now through the snowmelt season will be critical. Streamflow forecasts of near 150 percent of average are common along the Snake and its tributaries. Reservoir storage remains relatively high even with considerable spill during the past two months in anticipation of heavy snowmelt runoff.

SNOW COVER

Because of heavy precipitation during December and January, snow cover over much of the Columbia Basin remains well above average for this date. Record or near snowpacks continue on the Snake River and tributaries in southern Idaho and western Montana and Wyoming. On the other extreme, snow cover is near average in the Cascade range of northern Washington and for the Kootenai and Columbia watersheds in Canada. This relative lack of snow cover in the western part of the basin is principally due to warm weather during the heavy precipitation periods of December and January. Most of the precipitation came as snowfall even at medium to high elevations and caused excessive runoff rather than an extreme increase in snow accumulation. Increase in snow cover during February tended to be near average along the Continental Divide and in south central Idaho and deficient over Oregon and Washington.

SOIL MOISTURE

Soils are wet at all mountain elevations over the basin with good soil moisture remaining at valley elevations.

STREAMFLOW

The flow of the Columbia at The Dalles, Oregon has been above average since October 1 with extremely high flows at this point in December, January and February. Below Portland flows have been relatively higher because of flooding on the Willamette. The forecast of flow for the Columbia at The Dalles for the April-September, 1965 period is 122,000,000 acre feet or 113 percent of average as compared to about 107,000,000 acre feet for this period in 1964.

The record of monthly flows at The Dalles* for recent months is as follows:

Month	Percent of Average Discharge (1948-62)
October	113 (Adjusted for storage)
November	97 " " "
December	163 " " "
January	143 " " "
February	152 " " "

*Preliminary data furnished by Current Records Center, U. S. Geological Survey, Portland, Oregon

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STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
1057	Columbia at The Dalles	87,000 122,000	April-June April-Sept.	74,000 109,000	117 113

HISTORICAL DATA (Columbia River at The Dalles)

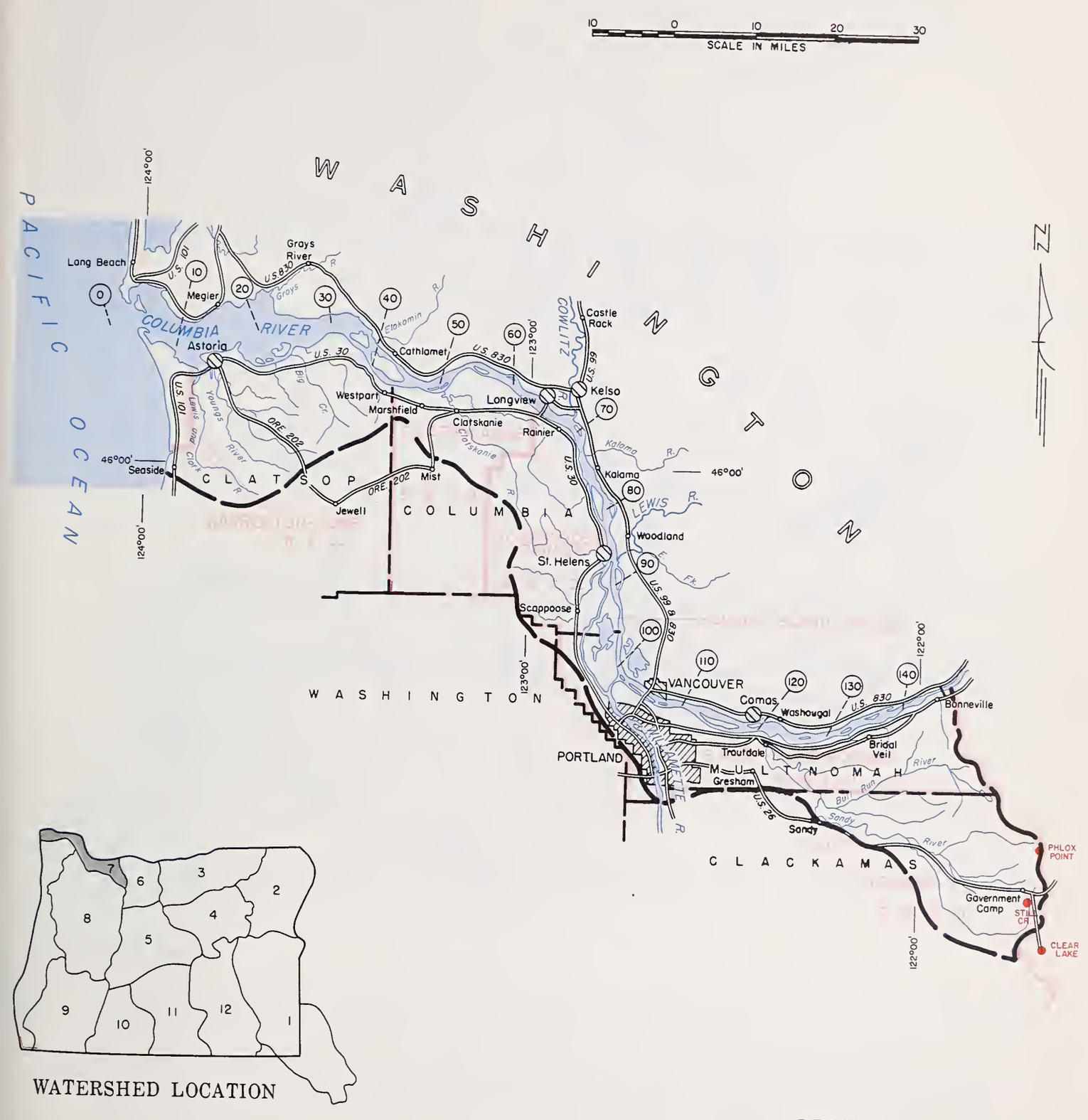
YEAR	STREAMFLOW[d] (1,000 A.F.) APR.— SEPT.	APR. — JUNE	MAY — JUNE	PEAK (1,000 c.f.s)	DATE
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,600	54,600	47,300	505	June 8
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1948-62 Avg.	108,500	74,100	60,200	633	
1963	87,000	56,300	46,200	437	June 18

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s)	DRAINAGE DISTRICT PUMPHOUSE SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES 118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

LOWER COLUMBIA WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- (50) River Miles
- Snow Course

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
WILLAMETTE WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The 1965 water supply outlook is above average for the Willamette Basin. Snow cover is slightly above average and watershed soils are well primed. Reservoirs hold adequate supplies of water for irrigation and streamflow is expected to be slightly above average for the spring and summer season.

SNOW COVER

Water content of the snowpack did not increase as much as usually expected during the month of February but still remains 104 percent of average and 105 percent of last year at this time.

Lower elevation snow was depleted while high elevations held or gained lightly but not nearly as much as the usually good February increases.

SOIL MOISTURE

Watershed soils are still very wet and will aid spring runoff.

RESERVOIR STORAGE

The seven multi-purpose reservoirs on the Willamette have been spilling to accomodate spring peak flows and are now near average for March 1. Timothy Lake on the Clackamas is full and spilling.

STREAMFLOW

Streamflow forecasts for the Willamette and tributaries remain a little above the 1948-62 average for the April through September period.

Flow of the Willamette at Salem is expected to be 5,800,000 acre feet or 104 percent of average for the April-September period.

Other forecasts in the Basin vary from 101 percent on the Clackamas at Three Lynx to 111 percent for the South Santiam.

Spring and summer streamflow peaks are not expected to be excessive unless temperature and precipitation are well above normal.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Calapooya	Excellent	Average
Clackamas	Excellent	Average
McKenzie	Excellent	Average
Molalla	Excellent	Average
Santiam, North	Excellent	Average
Santiam, South	Excellent	Average
Willamette, Coast Fork	Excellent	Average
Willamette, Middle Fork	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottage Grove	30.8*	7.8	7.7	9.6
Cougar	219.3*	25.9	28.6	- -
Detroit	299.9*	108.5	62.2	97.3[m]
Dorena	70.5*	17.4	16.9	21.1[m]
Fern Ridge	94.2*	26.6	15.0	37.2
Hills Creek Res.	249.0*	67.9	62.1	- -
Lookout Point	337.2*	103.0	65.5	101.9[m]
Timothy Lake	61.7	61.7	45.4	43.1[m]

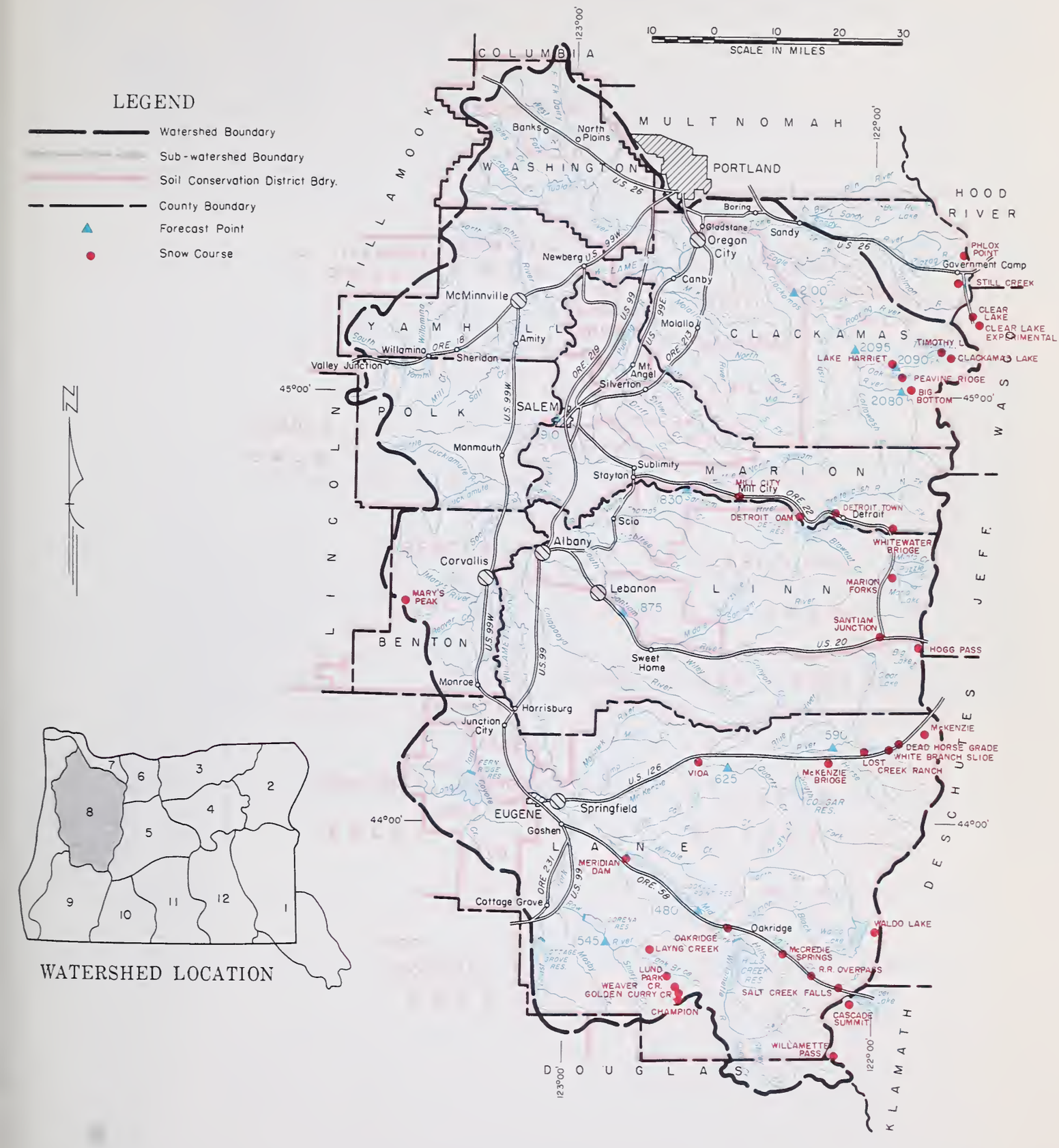
* Multiple purpose reservoir--space reserved primarily for flood runoff.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
2080	Clackamas at Big Bottom	165	April-July	150	110
		200	April-Sept.	184	109
2100	Clackamas at Estacada	795	April-July	770	103
		910	April-Sept.	890	102
2095	Clackamas above Three Lynx	593	April-July	584	102
		687	April-Sept.	683	101
1590	McKenzie at McKenzie Bridge	522	April-July	502	104
		676	April-Sept.	658	103
1625	McKenzie near Vida	1191	April-July	1144	104
		1434	April-Sept.	1392	103
2090	Oak Grove Fork above Power Intake	156	April-July	147	106
		200	April-Sept.	190	105
1545	Row near Dorena	112	April-July	108	104
		115	April-Sept.	112	103
1830	Santiam, North at Mehama[d]	928	April-July	884	105
		1030	April-Sept.	991	104
1875	Santiam, South at Waterloo	700	April-July	637	110
		750	April-Sept.	675	111
1480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	855	April-July	863	106
		965	April-Sept.	968	106
1910	Willamette at Salem[d]	5190	April-July	5040	103
		5800	April-Sept.	5566	104

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS



WATERSHED LOCATION

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Big Bottom	2118	2/27	6	2.4	4.7	6.4 h
Cascade Summit	4880	2/26	77	33.4	26.0	28.9
Champion	4500	3/1	65	28.7	28.5	24.7
Clackamas Lake	3400	3/1	38	14.2	17.0	12.7
Clear Lake	3500	2/26	30	11.5	8.4	11.9
Clear Lake (Experimental)	3500	2/26	48	19.0	14.6	8.3 m
Dead Horse Grade	3800	3/1	48	19.0	18.3	19.3 h
Detroit Town	1610	2/25	0	0.0	0.0	1.8 h
Detroit Dam	1580	2/25	0	0.0	0.0	0.7 h
Golden Curry Creek	3136	3/1	12	5.2	11.8	5.9 h
Hogg Pass	4755	2/25	99	42.3	35.0	39.4
Lake Harriet	2045	2/26	T	T	2.6	3.5 h
Layng Creek	1200	3/1	0	0.0	0.0	0.0 m
Lost Creek Ranch	1956	3/1	8	3.3	9.0	3.0 h
Lund Park	1740	3/1	0	0.0	0.0	1.0 h
Marion Forks	2730	2/25 j	25	10.5	- -	14.5
Marys Peak	3620	3/5	30	12.2	10.8	7.0 m
McCredie Springs	2120	2/26	0	0.0	0.0	0.7 h
McKenzie	4800	3/1	106	46.4	29.4	41.6 h
McKenzie Bridge	1372	3/1	0	0.0	0.0	1.2 h
Meridian Dam	750	2/26	0	0.0	0.0	0.0 h
Mill City	826	2/25	0	0.0	0.0	0.0 m
Oakridge	1310	2/26	0	0.0	0.0	T h
Peavine Ridge	3500	Not surveyed				
Phlox Point	5600	2/28	135	59.0	59.0	57.1
Railroad Overpass	2750	2/26	0	0.0	7.0	3.7 h
Salt Creek Falls	4000	2/26	49	20.5	15.5	15.5 h
Santiam Junction	3990	2/25	53	22.6	25.0	23.4
Still Creek	3700	2/26	58	23.1	24.8	23.0 h
Timothy Lake	3295	2/26	48	17.4	15.0	15.9 h
Vida	800	3/1	0	0.0	0.0	0.0 h
Waldo Lake	5500	2/25	82	33.2	27.1	- -
Weaver Creek	2440	3/1	0	0.0	0.0	2.0 h
White Branch Slide	2800	3/1	18	6.6	10.2	6.4 h
Whitewater Bridge	2175	2/25	14	5.7	5.3	6.1 h
Willamette Pass	5600	2/23	97	40.9	36.7	37.7 h

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
ROGUE, UMPQUA, WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in the Umpqua and Rogue watersheds will have adequate water supplies for the 1965 season. Mountain snowpacks are well above average; watershed soils are very wet, and reservoired water supplies are well above last years at this time.

SNOW COVER

Water content of the mountain snowpack, in spite of a very dry February, is now 111 percent average on the Rogue and 115 percent average on the Umpqua. High elevation snow is especially heavy.

SOIL MOISTURE

Watershed soils in the upper elevations are very wet and will favor runoff from melting snow or direct rainfall.

RESERVOIR STORAGE

Local reservoirs are holding unusually heavy amounts of water. Fish and Fourmile lakes are holding about 21,200 acre feet compared with 17,400 acre feet one year ago for the Medford and Rogue River Valley Irrigation Districts.

Howard Prairie, Hyatt Prairie and Emigrant Gap reservoirs are holding a total of 106,100 acre feet compared with 84,400 acre feet one year ago for the Talent Irrigation District.

STREAMFLOW

Flow of the Rogue River at Raygold* has been 97 percent average for the month of February.

Forecasts of streamflow for the period, April through September, are compared with average flows (1948-62) as follows:

North Umpqua at Toketee Falls	112 percent of average
Rogue below South Fork	108 percent of average
Rogue at Raygold	105 percent of average
Applegate near Copper	106 percent of average
Illinois at Kerby	111 percent of average

These forecasts are made on the assumption that average conditions of temperature and precipitation will prevail during the next 90 days.

* Preliminary data from Pacific Power & Light Co., Medford, Oregon.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek	Average	Average
Applegate River, Big	Average	Average
Applegate River, Little	Average	Average
Ashland Creek	Average	Average
Butte Creek, Little	Average	Average
Butte Creek, Big	Average	Average
Cow Creek	Average	Average
Deer Creek	Average	Average
Elk Creek	Average	Average
Emigrant Creek (abv. Res.)	Average	Average
Evans Creek	Average	Average
Gold Hill Irrigation Dist.	Excellent	Average
Grants Pass Irrig. Dist.	Excellent	Average
Grave Creek	Average	Average
Illinois River, East Fork	Average	Average
Illinois River, West Fork	Average	Average
Jump-off-Joe Creek	Average	Average
Neil Creek	Average	Average
Red Blanket Creek	Average	Average
Rogue River	Average	Average
Sucker Creek	Average	Average
Table Rock Irrig. Dist.	Excellent	Average
Thompson Creek	Average	Average
Wagner Creek	Average	Average
Williams Creek	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Emigrant Gap	39.0	29.4	28.2	26.8*
Fish Lake	7.8	7.9	4.7	5.4
Fourmile Lake	16.1	13.3	12.7	8.9
Howard Prairie	60.0	60.6	44.6	- -
Hyatt Prairie	16.1	16.1	11.6	8.1

*4 yr. average after reconstruction.

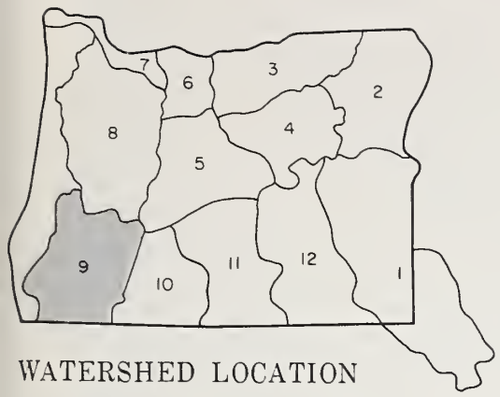
STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3620	Applegate near Copper	150	April-Sept.	142	106
3145	Clearwater above Trap Creek[d]	80	April-Sept.	75	107
5045	Fourmile Lake net Inflow[d]	7.5	March-Sept.	6.8	110
		7.0	April-Sept.	6.6	106
5140	Hyatt Reservoir net Inflow[d]	7.0	April-Sept.	6.4	110
3770	Illinois River at Kerby	400	March-July	348	115
		235	April-Sept.	212	111
3425	Little Butte, N. Fk. at Fish Lk. nr. Lake Cr.[d]	**	April-Sept.	16.0	
3415	Little Butte, So. Fk. nr. Lake Creek	**	April-July	38	
	Note: Minimum flow will drop to 100 c.f.s. by **.				
3280	Rogue above Prospect	325	April-July	295	110
		380	April-Sept.	355	107
3320	Rogue, South Fork near Prospect[d]	78	April-July	70	111
		90	April-Sept.	82	110
3350	Rogue River below South Fork	665	April-July	611	109
		815	April-Sept.	754	108
3590	Rogue at Raygold near Central Point	887	April-July	837	106
		1050	April-Sept.	1001	105
3615	Rogue at Grants Pass	1040	April-Sept.	993	105
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls[d]	208	April-Sept.	186	112

**Lack of specific snow data pervents completion of forecasts.

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



WATERSHED LOCATION

10 0 10 20 30
SCALE IN MILES

NN

Droin
Elkton
ORE. 38
U.S. 99
Yellow Cr.
U.S. 99
Sutherlin
CHAMPION
123°00'
L A N E
WINOIGO PASS
3135
NORTH UMPQUA
TRAP CREEK
Clearwater R.
3145
DIAMOND LAKE
Diamond Lake
DIAMOND CRATER SUMMIT
ORE. 230
ORE. 209
43°00'
Roseburg
Dillard
ORE. 42
D O U G L A S
RED BUTTE NO. 6
RED BUTTE NO. 5
RED BUTTE NO. 4
RED BUTTE NO. 3
RED BUTTE NO. 2
RED BUTTE NO. 1
Little R.
Coopland
Boulder Cr.
Castle Rock Fk.
Myrtle Creek
Canyonville
ORE. 227
Umpqua River
Jackson Cr.
Elk Cr.
SILVER BURN
Castle Cr.
PARK HOOTRS
ANNIE SPRING
WHALEBACK
ORE. 62
C O O S
EDEN VALLEY SUMMIT
124°00'
Azalea
Mule Cr.
ROGUE
W. Fk. Mid. Cr.
3280
Prospect
Rush Cr.
Blanket Cr.
S. FORK CANAL
3320
3350
SEVEN LAKES NO. 2
SEVEN LAKES NO. 1
Wolf Creek
Grave Cr.
Trail Cr.
Pleasant Cr.
Evans Cr.
U.S. 99
ROGUE RIVER
J A C K S O N
J O S E P H I N E
Grants Pass
3615
ORE. 234
3590
Eagle Point
Gold Hill
Little Butte Cr.
Antelope Cr.
WILLOW CR. RES.
FOURMILE LAKE RES.
5045
FOURMILE LAKE
RYE SPRING SPUR
BILLIE CREEK DIVIDE
FISH LAKE
3425
FISH LAKE RES.
3415
Medford
ORE. 62
Bear Cr.
DEADWOOD JUNCTION
BEAVER DAM CR.
HOWARD PRAIRIE
HOWARD PRAIRIE RES.
K L A M A T H
Illinois River
Applegate Cr.
U.S. 199
Deer Cr.
C U R R Y
5770
Kerby
Cave Junction
Josephine Cr.
Sucker Cr.
Williams Cr.
Thompson Cr.
ORE. 238
Applegate R.
Ashland
U.S. 99
5140
HYATT PRAIRIE RESERVOIR
EMIGRANT RES.
ORE. 66
GRAYBACK PEAK
LITTLE REO MTN.
SISKIYOU SUMMIT
Siskiyou
HOBART LAKE
3620
PAGE MTN.
ALTHOUSE
Squaw Cr.
BIG REO MTN.
Copper
42°00'
124°00'
123°00'
C A L I F O R N I A

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
					WATER CONTENT (Inches)	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
Althouse	4530	2/26	13	6.5	6.3	6.2
Annie Spring	6018	2/26	109	47.6	35.1	39.8
Beaver Dam Creek	5100	2/24	24	10.4	13.3	- -
Big Red Mountain	6500	2/23	65	26.0	17.2	28.2
Billie Creek Divide	5300	2/26	50	21.5	21.5	22.1
Champion	4500	3/1	65	28.7	28.5	24.7
Cold Springs Camp	6100	3/1	104	41.2	28.3	- -
Deadwood Junction	4600	2/24	16	6.7	13.6	- -
Diamond-Crater Summit	5800	2/26	100	41.8	29.5	- -
Diamond Lake	5315	2/26	58	23.3	18.8	21.9
Eden Valley Summit	2390	Report	delayed			
Fish Lake	4865	Not	surveyed			
Fourmile Lake	6000	c				
Grayback Peak	6000	2/23	57	26.1	25.7	25.8
Howard Prairie	4500	2/24	18	7.2	10.5	- -
Hyatt Prairie Reservoir	4900	2/24	16	7.3	9.2	8.7 *h*
King Mountain #1	4800	b				
King Mountain #2	3646	b				
King Mountain #3	2550	b				
King Mountain #4	1779	b				
Little Red Mountain	6500	2/23	51	21.6	15.8	22.3 *h*
North Umpqua	4215	2/24	35	15.6	17.8	12.6 *h*
Page Mountain	4045	2/26	3	1.6	2.4	5.4 *h*
Park Headquarters	6450	2/26	158	76.4	48.0	50.3
Red Butte #1	4560	2/23	19	8.8	- -	- -
Red Butte #2	4000	2/23	10	4.0	15.3	- -
Red Butte #3	3500	2/23	Snow	disturbed		
Red Butte #4	3000	2/23	T	T	6.0	- -
Red Butte #5	2500	2/23	0	0.0	0.0	- -
Red Butte #6	2000	2/23	0	0.0	0.0	- -
Seven Lakes #1	6800	2/24	138	64.5	46.2	51.5 *h*
Seven Lakes #2	6200	2/23	104	45.1	33.2	37.2 *h*
Silver Burn	3720	2/25	26	11.8	14.5	13.1
Siskiyou Summit	4630	2/28	8	3.2	7.4	6.9
South Fork Canal	3500	2/25	0	0.0	4.5	2.7
Trap Creek	3800	2/24	31	13.1	16.0	10.7 *h*
Whaleback	5140	3/1	80	32.3	29.0	31.7 *h*
Windigo Pass	5800	2/24	111	49.1	36.9	39.3 *h*

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
KLAMATH WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in Klamath Basin will have excellent water supplies in 1965. Mountain snowpacks are still above average for this date in spite of a "dry" February; soil moisture is near the saturation point and reservoirs now hold ample amounts of water.

SNOW COVER

Water content of the mountain snowpack failed to increase in the usual heavy amounts during February but, nevertheless, is 111 percent of the March 1 average for the 15 year period, 1948-62. There is about 11 percent more water in the snow than last year at this date. Snow above the 6000 foot elevation is particularly heavy.

SOIL MOISTURE

Watershed soils are very wet -- near saturation at many places. This will definitely favor runoff from melting snow or rainfall.

RESERVOIR STORAGE

Reservoirs in Klamath Basin are holding above average amounts of water for this date.

Upper Klamath Lake held 483,760 acre feet on March 1 compared with 315,100 acre feet last year and has been spilling.

Gerber Reservoir held 70,990 acre feet compared with 37,000 acre feet last year and it has been spilling also.

Clear Lake Reservoir held 271,850 acre feet on March 1 compared with 94,200 one year ago.

STREAMFLOW

Inflow to Upper Klamath Lake has been nearly twice the average February amount in spite of a very dry month.

Forecasts of the 1965 streamflow in Klamath Basin during the April through September period are well above the 1948-62 average. Sprague River is forecast to flow 425,000 acre feet or 147 percent average. Williamson River plus the Sprague is forecast at 637,000 acre feet or 130 percent average. Net inflow to Upper Klamath Lake is forecast at 784,000 acre feet or 123 percent average. The 1964 inflow was 505,300 acre feet.

Forecasts of inflow to Gerber and Clear Lake reservoirs are set at 25,000 and 53,000 acre feet, respectively, for the six months April through September or 109 and 110 percent of the average.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley	Excellent	Average
Lost River (Clear Lake)	Excellent	Excellent
Lost River (Gerber)	Excellent	Excellent
Lost River (Willow Res.)	Excellent	Excellent
Sprague River	Excellent	Average
Upper Klamath Lake	Excellent	Excellent
Williamson River	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	440.2	271.8	94.2	207.4
Gerber	94.0	71.0	37.0	39.9[m]
Upper Klamath Lake	584.0	483.8	315.1	410.6

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
923	Clear Lake Reservoir Inflow[k]	120	March-June	76	158
		53	April-Sept.	48	110
8215	Gerber Reservoir Inflow[k]	59	March-June	38	155
		25	April-Sept.	23	109
5010	Sprague near Chiloquin	555	March-Sept.	346	160
		425	April-Sept.	289	147
5070	Upper Klamath Lake net Inflow[k]	1100	March-Sept.	834	132
		784	April-Sept.	639	123
5025	Williamson below Sprague River	865	March-Sept.	600	144
		637	April-Sept.	490	130

SOIL MOISTURE

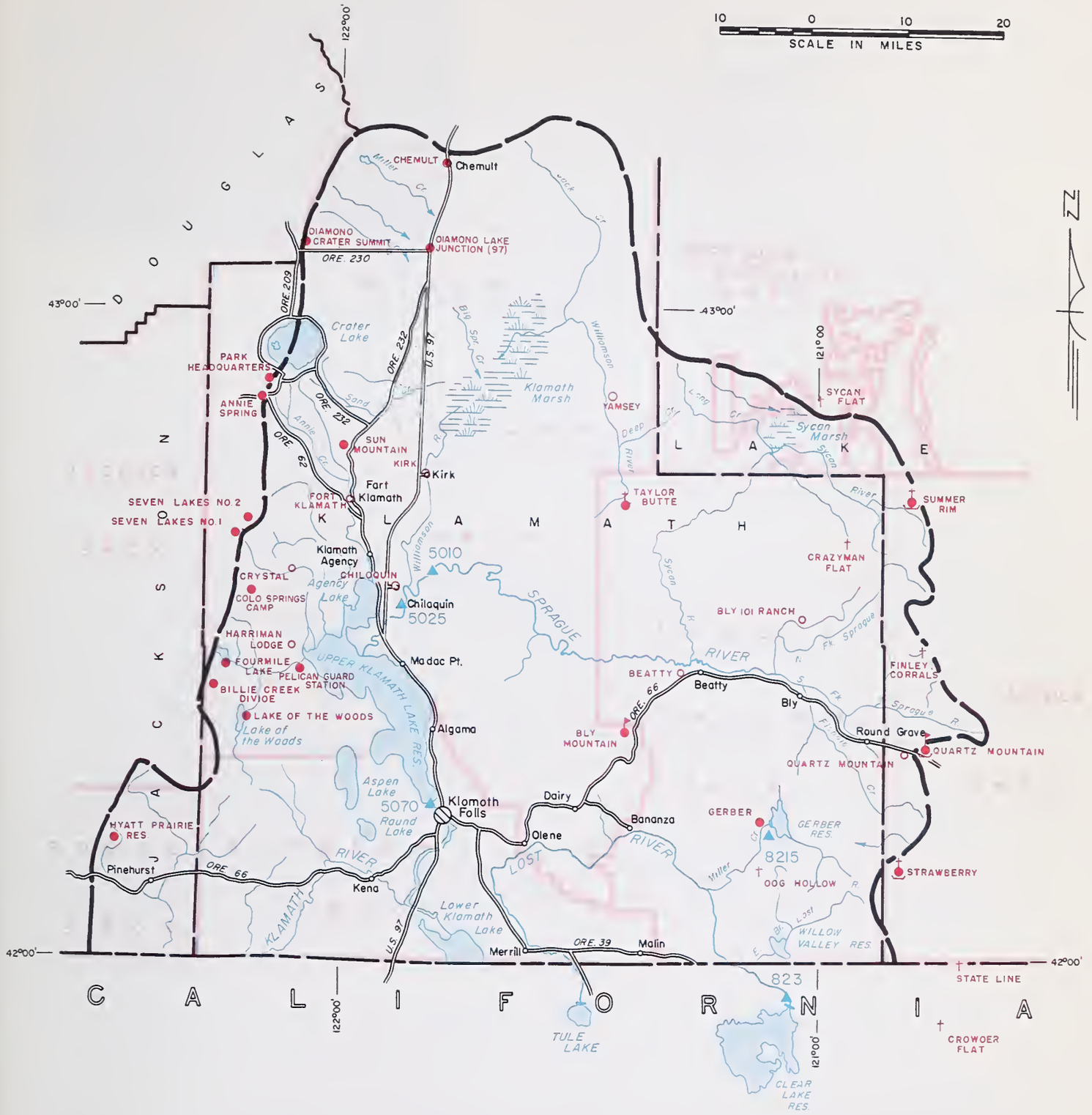
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bly Mountain	5090	42	14.0	2-25-65	12.6	10.4	12.9

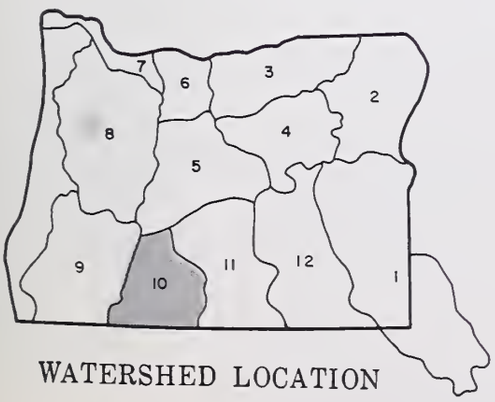
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1948-62 AVERAGE
Annie Springs	6018	2/26	109	47.6	35.1	39.8
Beatty (PP&L)	4400	3/1	0	0.0	0.9	0.1
Billie Creek Divide	5300	2/26	50	21.5	21.5	22.1
Bly Mountain	5090	2/25	7	3.2	8.2	4.8[m]
Bly 101 Ranch (PP&L)	4800	3/1	0	0.0	4.4	1.0
Chemult	4760	2/25	29	11.4	9.0	11.4
Chiloquin (PP&L)	4187	3/1	0	0.0	3.3	0.9
Cold Springs Camp	6100	3/1	104	41.2	28.3	- -
Crazyman Flat[e]	6100	2/23	21	9.0	8.4	8.5[m]
Crowder Flat[e] (Calif.)	5200	2/23	4	1.7	4.5	2.2[m]
Crystal (PP&L)	4200	3/1	14	6.5	7.3	9.7
Diamond-Crater Summit	5800	2/26	100	41.8	29.5	- -
Diamond Lake Junction (97)	4600	2/26	13	5.2	7.0	- -
Dog Hollow[e]	4900	2/23	T	T	2.4	0.1[m]
Finley Corrals[e]	6000	2/23	43	18.5	15.3	14.0[m]
Fort Klamath (PP&L)	4150	3/1	6	2.8	6.2	3.3
Gerber	4850	2/26	T	T	5.5	2.2[h][m]
Harriman (PP&L)	4200	3/1	2	0.9	12.8	2.9
Hyatt Prairie Reservoir	4900	2/24	16	7.3	9.2	8.7[h]
Kirk (PP&L)	4533	b				
Lake of the Woods	4960	2/26	24	9.6	13.8	11.8
Park Headquarters	6450	2/26	158	76.4	48.0	50.3
Pelican Guard Station	4150	2/26	2	1.3	5.1	- -
Quartz Mountain	5320	2/25	11	4.8	6.8	6.2
Quartz Mountain (PP&L)	5504	2/25	14	6.3	6.9	6.3[h]
Seven Lakes #1	6800	2/24	138	64.5	46.2	51.5[h]
Seven Lakes #2	6200	2/23	104	45.1	33.2	37.2[h]
State Line[e] (Calif.)	5750	2/23	12	5.2	10.2	8.9[m]
Strawberry	5760	2/26	14	5.8	7.8	7.9[h]
Summer Rim	7200	2/26	45	19.4	12.3	14.8
Sun Mountain	5350	2/25	59	23.4	21.5	23.9
Sycan Flat[e]	5500	2/23	17	7.3	6.3	6.1[m]
Taylor Butte	5100	2/25	8	3.6	5.5	6.2[h]
Yamsey (PP&L)	4600	b				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS





WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aeriol Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in Lake County will have excellent water supplies in 1965 if average conditions of rainfall and temperature prevail for the next 90 days. The mountain snowpack failed to increase at the average rate in February but still contains plenty of water for an adequate runoff into reservoirs and irrigation ditches.

SNOW COVER

Water content of the mountain snowpack on March 1 averaged about normal for this date. Some of the high stations have heavy water amounts. The snow is 13 percent greater than last year at this date.

SOIL MOISTURE

Watershed soils are very wet throughout the area. Measurements taken at Camas Summit on the Lakeview-Adel highway indicate moisture is now 93 percent of total capacity.

RESERVOIR STORAGE

Both Drews Valley and Cottonwood reservoirs have been spilling to make space for flows still to come. As of March 1 they were nearly full with 61,835 acre feet in Drews and 7,100 acre feet in Cottonwood. Many small reservoirs in the county are reported to be full at this time.

STREAMFLOW

Forecasts of spring and early summer streamflow, March through June, are all well above average amounts but have dropped some from last month because of the dry February just experienced.

Inflow to Drews Reservoir is forecast at 55,000 acre feet compared with the 15 year average (1948-62) of 45,000 acre feet.

Flow of Chewaucan River is forecast at 136,000 acre feet compared with 89,000 acre feet which is the average flow. This is an excellent flow.

In Warner Valley, flow of Deep Creek is forecast at 111,000 acre feet compared with 78,000 acre feet average. Twentymile Creek is expected to flow 37,000 acre feet compared with an average of 28,000 acre feet and Honey Creek is forecast at 26,000 acre feet compared with an average flow of 18,000 acre feet.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan River	Excellent	Average
Crooked Creek	Excellent	Average
Deep Creek	Excellent	Average
Dry Creek	Excellent	Average
East Side Goose Lake	Excellent	Average
Guano Lake	Excellent	Average
Honey Creek	Excellent	Average
Lakeview Water Users Assn.	Excellent	Excellent
Rock Creek (Hart Mtn.)	Excellent	Average
Silver-Buck Creeks	Excellent	Average
Summer Lake	Excellent	Average
Thomas Creek	Excellent	Average
Twentymile Creek	Excellent	Average
Warner Lakes	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood	9.1	7.1	1.1	3.1*
Drew	63.0	61.8	38.9	37.3

*2 yr. average after reconstruction.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3840	Chewaucan near Paisley	136	March-June	89	153
3715	Deep above Adel	111	March-June	78	142
3385	Drew Reservoir net Inflow	55	March-July	45	122
3785	Honey near Plush	26	March-June	18.0	144
3660	Twentymile near Adel	37	March-June	28	132

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Camas Creek	5720	42	14.5	2-26-65	13.4	12.7	13.0
Quartz Mountain	5320	48	15.3	2-25-65	10.3	8.4	10.9

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) 1948-62 AVERAGE
Bald Mountain (Nev.)	6720	2/24	6	2.4	2.3	3.5
Bear Flat Meadow[e]	5900	2/23	22	8.8	6.0	9.8[m]
Camas Creek	5720	2/25	22	8.2	10.8	11.2
Cox Flat[e]	5750	2/23	22	9.5	8.4	6.5[m]
Crane Mountain[e]	6020	2/23	1	0.4	3.3	5.1[m]
Crowder Flat[e] (Calif.)	5200	2/23	4	1.7	4.5	2.2[m]
Dismal Swamp[e] (Calif.)	7000	2/23	45	18.0	9.0	15.8[m]
Finley Corrals[e]	6000	2/23	43	18.5	15.3	14.0[m]
Hart Mountain[e]	6350	2/23	2	0.8	1.5	2.0[m]
Little Bally Mountain[e] (Nev.)	6600	2/23	3	1.2	1.8	- -
Mill Creek	6200	3/1	22	9.8	6.3	8.3
Patton Meadows[e]	6800	2/23	51	21.9	12.0	- -
Quartz Mountain (PP&L)	5504	2/25	14	6.3	6.9	6.3
Quartz Mountain	5320	2/25	11	4.8	6.8	6.2
Sherman Valley[e]	6600	2/23	30	12.0	10.5	11.1[m]
Silver Creek	4900	2/26	3	1.3	2.4	3.5
State Line[e] (Calif.)	5750	2/23	12	5.2	10.2	8.9[m]
Strawberry	5760	2/26	14	5.8	7.8	7.9[h]
Summer Rim	7200	2/26	45	19.4	12.3	14.8
Sycan Flat[e]	5500	2/23	17	7.3	6.3	6.1[m]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of

MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators in Lake County will have excellent water supplies in 1965 if average conditions of rainfall and temperature prevail for the next 90 days. The mountain snowpack failed to increase at the average rate in February but still contains plenty of water for an adequate runoff into reservoirs and irrigation ditches.

SNOW COVER

Water content of the mountain snowpack on March 1 averaged about normal for this date. Some of the high stations have heavy water amounts. The snow is 13 percent greater than last year at this date.

SOIL MOISTURE

Watershed soils are very wet throughout the area. Measurements taken at Camas Summit on the Lakeview-Adel highway indicate moisture is now 93 percent of total capacity.

RESERVOIR STORAGE

Both Drews Valley and Cottonwood reservoirs have been spilling to make space for flows still to come. As of March 1 they were nearly full with 61,835 acre feet in Drews and 7,100 acre feet in Cottonwood. Many small reservoirs in the county are reported to be full at this time.

STREAMFLOW

Forecasts of spring and early summer streamflow, March through June, are all well above average amounts but have dropped some from last month because of the dry February just experienced.

Inflow to Drews Reservoir is forecast at 55,000 acre feet compared with the 15 year average (1948-62) of 45,000 acre feet.

Flow of Chewaucan River is forecast at 136,000 acre feet compared with 89,000 acre feet which is the average flow. This is an excellent flow.

In Warner Valley, flow of Deep Creek is forecast at 111,000 acre feet compared with 78,000 acre feet average. Twentymile Creek is expected to flow 37,000 acre feet compared with an average of 28,000 acre feet and Honey Creek is forecast at 26,000 acre feet compared with an average flow of 18,000 acre feet.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan River	Excellent	Average
Crooked Creek	Excellent	Average
Deep Creek	Excellent	Average
Dry Creek	Excellent	Average
East Side Goose Lake	Excellent	Average
Guano Lake	Excellent	Average
Honey Creek	Excellent	Average
Lakeview Water Users Assn.	Excellent	Excellent
Rock Creek (Hart Mtn.)	Excellent	Average
Silver-Buck Creeks	Excellent	Average
Summer Lake	Excellent	Average
Thomas Creek	Excellent	Average
Twentymile Creek	Excellent	Average
Warner Lakes	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood	9.1	7.1	1.1	3.1*
Drew	63.0	61.8	38.9	37.3

*2 yr. average after reconstruction.

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
NO.	NAME				
3840	Chewaucan near Paisley	136	March-June	89	153
3715	Deep above Adel	111	March-June	78	142
3385	Drew Reservoir net Inflow	55	March-July	45	122
3785	Honey near Plush	26	March-June	18.0	144
3660	Twentymile near Adel	37	March-June	28	132

SOIL MOISTURE

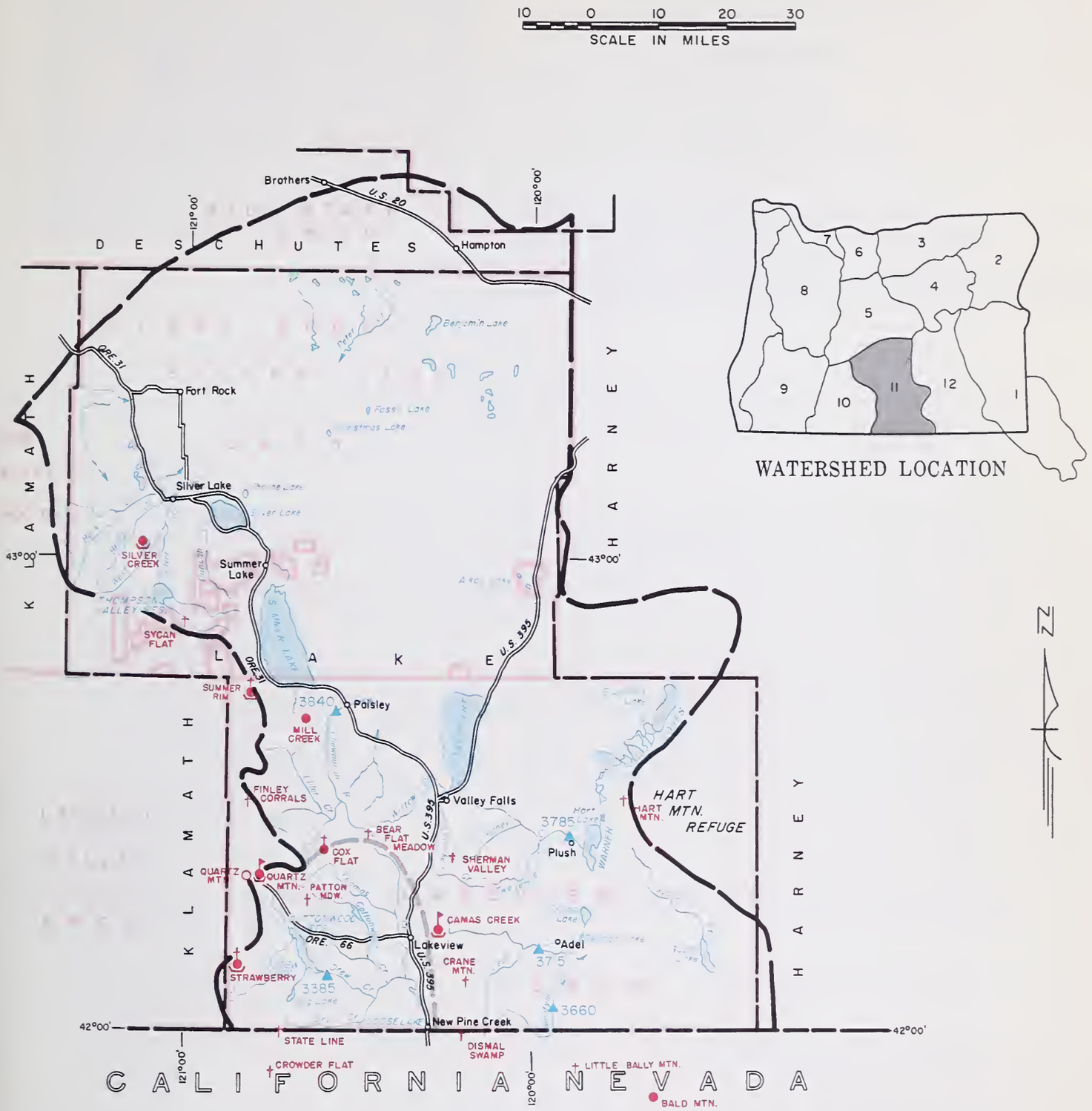
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Camas Creek	5720	42	14.5	2-26-65	13.4	12.7	13.0
Quartz Mountain	5320	48	15.3	2-25-65	10.3	8.4	10.9

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	1948-62 AVERAGE
Bald Mountain (Nev.)	6720	2/24	6	2.4	2.3	3.5
Bear Flat Meadow[e]	5900	2/23	22	8.8	6.0	9.8[m]
Camas Creek	5720	2/25	22	8.2	10.8	11.2
Cox Flat[e]	5750	2/23	22	9.5	8.4	6.5[m]
Crane Mountain[e]	6020	2/23	1	0.4	3.3	5.1[m]
Crowder Flat[e] (Calif.)	5200	2/23	4	1.7	4.5	2.2[m]
Dismal Swamp[e] (Calif.)	7000	2/23	45	18.0	9.0	15.8[m]
Finley Corrals[e]	6000	2/23	43	18.5	15.3	14.0[m]
Hart Mountain[e]	6350	2/23	2	0.8	1.5	2.0[m]
Little Bally Mountain[e] (Nev.)	6600	2/23	3	1.2	1.8	- -
Mill Creek	6200	3/1	22	9.8	6.3	8.3
Patton Meadows[e]	6800	2/23	51	21.9	12.0	- -
Quartz Mountain (PP&L)	5504	2/25	14	6.3	6.9	6.3
Quartz Mountain	5320	2/25	11	4.8	6.8	6.2
Sherman Valley[e]	6600	2/23	30	12.0	10.5	11.1[m]
Silver Creek	4900	2/26	3	1.3	2.4	3.5
State Line[e] (Calif.)	5750	2/23	12	5.2	10.2	8.9[m]
Strawberry	5760	2/26	14	5.8	7.8	7.9[h]
Summer Rim	7200	2/26	45	19.4	12.3	14.8
Sycan Flat[e]	5500	2/23	17	7.3	6.3	6.1[m]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



WATERSHED LOCATION

N

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
HARNEY BASIN WATERSHEDS
OREGON

as of
MARCH 1, 1965

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

The 1965 water supply outlook for Harney Basin is very good - the best since 1958. Snow cover is above average and soils are well primed for spring runoff.

SNOW VOVER

Water content of the mountain snowpack in Harney Basin is now 112 percent of the 1948-62 average for March 1 and 118 percent of last year at this time.

The north half of the Basin averages 121 percent while the south half averages only 85 percent after a dry February.

SOIL MOISTURE

Watershed soils in the north half of the Basin are near capacity and an average of 4 stations is now 91 percent.

The south half of the Basin is not quite as wet with Silvies moisture station showing 77 percent of capacity.

STREAMFLOW

Forecasts of spring and summer streamflow in Harney Basin indicate the highest flows since 1958 if temperature and precipitation are at least average for the remainder of the season.

The Silvies is forecast to flow 147,000 acre feet or 148 percent during the April-September period.

The Blitzen is expected to flow 93,000 acre feet or 150 percent for the same period.

Trout Creek is forecast at 13,500 acre feet or 161 percent of the 1948-62 average for April through September.

Silver Creek is expected to flow 32,000 acre feet during the March-July period or 145 percent of its average

Smaller streams are expected to hold up later in the season as a result of the good snowpack and wet soils.

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair" "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley	Average	Average
Cow Creek	Average	Average
Donner und Blitzen River	Excellent	Average
Mill-Coffeepot Creeks	Average	Average
Rattlesnake Creek	Average	Average
Silver Creek	Excellent	Average
Silvies River	Excellent	Average
Soldier-Prather Creek	Average	Average
Trout Creek	Excellent	Average
Whitehorse Creek	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1965

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS[a] (1,000 Ac. Ft.) as of March 1, 1965

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE[i]
3960	Donner und Blitzen near Frenchglen	89	March-June	59	151
		93	April-Sept.	62	150
4030	Silver near Riley	32	March-July	22	145
3935	Silvies near Burns	181	March-June	116	156
		147	April-Sept.	99	148
4065	Trout near Denio	14.0	March-July	9.0	161
		13.5	April-Sept.	8.4	161

SOIL MOISTURE

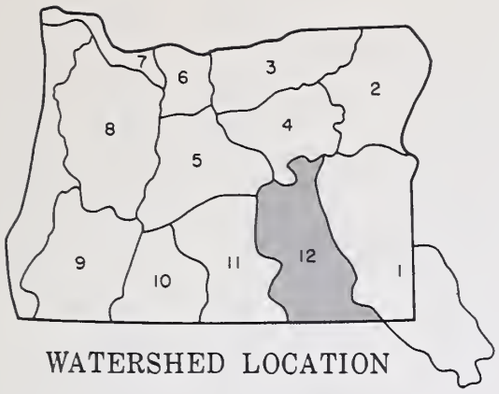
STATION NAME	STATION ELEVATION	PROFILE (Inches) DEPTH	PROFILE (Inches) CAPACITY	SOIL MOISTURE (Inches) DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Blue Mountain Springs	5900	42	16.9	2-24-65	12.6	7.4	13.5
Fish Creek	7600	48	15.0	b			
Folly Farm	4450	30	12.5	b			
Silvies	6900	48	16.4	2-24-65	12.7	10.1	13.6
Snow Mountain	6300	48	16.7	2-26-65	16.5	12.3	14.8
Starr Ridge	5150	36	10.6	2-25-65	10.4	8.3	10.5
Stinking Water Summit	4800	48	21.9	b			
Willow-Bald	5000	24	6.6	2-26-65	6.5	5.3	6.5

SNOW

SNOW COURSE NAME	SNOW COURSE ELEVATION	CURRENT INFORMATION DATE OF SURVEY	CURRENT INFORMATION SNOW DEPTH (Inches)	CURRENT INFORMATION WATER CONTENT (Inches)	PAST RECORD WATER CONTENT (Inches) LAST YEAR	PAST RECORD WATER CONTENT (Inches) 1948-62 AVERAGE
Blue Mountain Springs	5900	2/24	58	21.9	12.9	15.8
Buck Pasture	5700	2/25	0	0.0	6.1	- -
Buckskin Lake	5200	2/25	0	0.0	- -	- -
Call Meadows	5340	2/25	4	1.4	3.5	- -
Crow Camp	5500	2/25	T	T	2.9	- -
Delintment Lake	5600	2/26	22	8.2	6.6	- -
Denio Creek	6000	2/25	0	0.0	0.6	- -
Disaster Peak (Nev.)	6500	3/2	29	13.3	13.1	14.6[h]
Emigrant Butte	5000	2/26	9	4.2	4.7	- -
Fish Creek	7900	2/24	74	33.0	21.5	- -
Hart Mountain	6350	2/23	2	0.8	1.5	2.0[m]
Idlewild Camp	5200	2/25	14	4.9	4.8	5.4
Izee Summit	5293	2/25	26	8.5	7.1	8.0
Lake Creek	5120	2/24	38	12.8	9.7	10.5
Oregon Canyon	6950	2/25	8	3.7	6.0	- -
Rock Spring	5100	2/25	18	5.7	4.9	5.6
Silvies	6900	2/24	31	12.4	11.2	- -
Snow Mountain	6300	2/26	44	16.6	10.5	- -
Starr Ridge	5150	2/25	23	8.0	5.2	5.6
Stinking Water	4800	Not surveyed				
Trout Creek	7800	2/25	20	9.2	5.4	- -
"V" Lake	6600	2/25	8	3.7	4.1	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS



WATERSHED LOCATION

10 0 10 20 30
SCALE IN MILES

NN

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecost Point
- Snow Course
- Aeriol Snow Depth Goge
- Soil Moisture Station
- Precipitation Goge

OR-12c

"The Conservation of Water begins with the Snow Survey"

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.

OWYHEE, MALHEUR WATERSHEDS (1)

Owyhee River

16Q6	Antelope Ridge	(Ida)	20	8S	1W 5900
16Q7a	Battle Creek	(Nev)	31	46N	58E 7800
15N12MA	Bear Creek	(Nev)	30	45N	56E 6700
15N12MP	Big Bend		4	38S	42E 5290
17Q2a	Blue Mtn Pass	(Nev)	25	45N	39E 6700
17N2	Buckskin, Lower	(Nev)	11	45N	39E 7200
17N1	Buckskin, Upper	(Ida)	29	12S	5W 5600
16Q10a	Bull Basin	(Nev)	8	47N	34E 6500
16N1	Disaster Peak		4	33S	33E 7900
16Q2MA	Fish Creek		8	30S	38E 4450
16Q3a	Folly Farm Summit		33	46N	58E 6800
15N2	Fox Creek	(Nev)	31	43N	54E 6700
15N7	Fry Canyon	(Nev)	31	45N	56E 6600
15N5	Gold Creek	(Nev)	22	44N	39E 7800
17N4	Granite Peak	(Ida)	31	8S	2W 5800
16Q5a	Hyde Pasture	(Ida)	18	42N	53E 6800
16N1M	Jack Creek, Lower	(Nev)	18	42N	53E 7250
16N2	Jack Creek, Upper	(Nev)	28	42N	53E 8420
16N4	Jack Peak	(Nev)	9	39S	46E 4390
17Q3a	Jordan Valley		2	40S	47E 5650
17Q5a	Lookout Butte		27	40S	44E 6440
17Q4a	Louse Canyon		18	44N	40E 6700
17N3	Martin Creek	(Nev)	18	44N	40E 7200
16N3	Midge	(Nev)	18	39N	46E 7200
16Q7M	Mud Flat	(Ida)	34	9S	2W 5500
17Q5a	Oregon Canyon		8	40S	40E 6950
17N6a	Quinn Ridge	(Nev)	9	47N	41E 6300
16Q11a	Red Canyon	(Ida)	32	11S	4W 6500
15N6MP	Rodeo Flat	(Nev)	36	43N	53E 6800
15N3A	76 Creek	(Nev)	6	44N	58E 7100
16F3	Silver City	(Ida)	6	5S	3W 6400
18Q1MA	Silvies		35	32S	32½E 6900
16Q1	South Mountain No.2	(Ida)	10	8S	5W 6340
16F6a	Succor Creek	(Ida)	25	3S	5W 6100
15N9MP	Taylor Canyon	(Nev)	35	39N	53E 6200
15N8	Tresewan Ranch	(Nev)	9	39N	55E 5700
16Q4MA	Triangle	(Ida)	25	7S	3W 5150
18Q5a	Trout Creek		10	41S	38E 7800
18Q7a	"V" Lake		31	35½S	32½E 6600

Malheur River

18E14	Barney Creek		16	14S	36E 5950
18E16MP	Blue Mountain Spring		21	15S	35E 5900
18F6a	Buck Pasture		21	29S	35E 5700
18E21a	Bully Creek		10	17S	37E 5300
18F7a	Call Meadows		29	20S	33E 5340
17F2a	Cottonwood-Indian		10	19S	39E 4320
18E19M	Crane Prairie		24	16S	34E 5375
18F8a	Crow Camp			Unsurveyed	
18E20	Eldorado Pass		20	14S	38E 4600
18E26a	Fing Prairie		32	16S	36E 4750
18E18	Lake Creek		10	16S	33½E 5120
18E27a	Lagoon Valley		13	16S	33½E 5100
18F1	Rock Spring		23	18S	32E 5100
18F4MP	Stinking Water		33	21S	34E 4800

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS (2)

Burnt River

13E14	Barney Creek		16	14S	36E 5950
13E13M	Blue Mountain Summit		6	12S	36E 5098
17E1M	Dooley Mountain		32	11S	40E 5430
18E20	Eldorado Pass		20	14S	38E 4600
18E3	Gold Center		21	9S	36E 5340
18E9	Tipton		34	10S	35½E 5100

Powder River

18E1	Anthony Lake		18	7S	37E 7125
18E5	Bourne		33	8S	37E 5800
17E1M	Dooley Mountain		32	11S	40E 5430
18E3	Ellertson Meadows		18	8S	38E 5400
18E3	Gold Center		21	9S	36E 5340
18E6	Goodrich Lake		4	9S	36E 6775
17D12m	Ladd Summit		5	5S	39E 3730
18E23	Little Alps		10	7S	37E 6200
18D10	Summit Springs		9	6S	37E 6000
17D7	Taylor Green		3	6S	42E 5740

Pine Creek

17D8	Schneider Meadows		35	6S	45E 5400

Grande Ronde River

17D1	Aneroid Lake No. 1		16	4S	45E 7480
17D2P	Aneroid Lake No. 2		16	4S	45E 7300
18E1	Anthony Lake		18	7S	37E 7125
17D10a	Bald Mountain		14	4S	41E 6700
18D9	Beaver Reservoir		8	5S	37E 5340
18D8	County Line		28	4S	34E 4800
18D6	Lucky Strike		28	3S	32E 5050
18D5	Meacham	24 & 25		1S	35E 4300
17D13a	Mirror Lake		34	4S	44E 8300
17D6M	Mose Spring		28	3S	41E 5850
18D7	Schoolmarm		28	4S	34E 4775
17D11a	Standley		28	2S	42E 7400
17D7	Taylor Green		3	6S	42E 5740
18D3M	Tollgate		31	4N	38E 5070
17D15a	TV Riege		11	2S	43E 5670

Imnaha River

17D1	Aneroid Lake No. 1		16	4S	45E 7480
17D2P	Aneroid Lake No. 2		16	4S	45E 7000
17D14a	Big Sheep		33	4S	46E 6200

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS (3)

Umatilla River

19D2	Arbuckle Mountain		33	4S	29E 5400
18D14m	Athena-Weston Summit		21	4N	35E 1700
18D12M	Battle Mountain Summit		29	3S	31E 4340
18D4M	Emigrant Springs		29	1N	35E 3925
18D6	Lucky Strike		28	3S	32E 5050
18D5	Meacham	24 & 25		1S	35E 4300
18D3M	Tollgate		32	4N	38E 5070
18D13	Walla Walla Diversion		22	6N	38E 2400

Walla Walla River

18D16	Blue Mountain Camp		35	4N	37E 4300
18D3M	Tollgate		32	4N	38E 5070
18D17	Weston Mountain		25	4N	35E 2700

Willow Creek

19D2	Arbuckle Mountain		33	4S	29E 5400

UPPER JOHN DAY WATERSHEDS (4)

Upper John Day River

18E1	Anthony Lake		18	7S	37E 7125
19D2	Arbuckle Mountain		33	4S	29E 5400
18D12M	Battle Mountain Summit		29	3S	31E 4340
19E2M	Beech Creek Summit		4	12S	30E 4800
18E16MP	Blue Mountain Spring		21	15S	35E 5900
18E13M	Blue Mountain Summit		6	12S	36E 5098
19E3MP	Derr		14	13S	23E 5670
18E27a	East Fork Canyon		15	15S	32E 5700
18E8	Gold Center		21	9S	36E 5340
18E21a	Golden Butte		5	16S	33E 6550
19E9P	Izee Summit		28	16S	29E 5293
18D6	Lucky Strike		28	3S	32E 5050
20E1MP	Marks Creek		25	12S	19E 4540
20E2	Ochoco Meadows		21	13S	20E 5200
18E7	Olive Lake		14	9S	34E 6000
18D7	Schoolmarm		28	4S	34E 4775
19F1M	Snow Mountain		1	19S	26E 6300
19E7M	Starr Ridge		20	15S	31E 5150
18E9	Tipton		34	10S	35½E 5100
18E25MP	Williams Ranch		20	15S	32E 4500

UPPER DESCHUTES, CROOKED WATERSHEDS (5)

Upper Deschutes River

21E11	Black Pine Spring		14	16S	9E 4600
21F8	Caldwell Ranch		30	21S	8E 4200
22F3	Cascade Summit		7	23S	6E 4880
21F7	Charlton Lake		23	21S	6E 5750
21F11	Chemult		21	27S	8E 4760
21F14	Fire Road		36	21S	11E 5050
21E5	Hogg Pass		24	13S	7½E 4755
21F4	Hungry Flat		30	18S	11E 4400
21F6	Irish-Taylor		25	20S	6E 5500
21F17	Movich		29	25S	25E 4700
21F10	New Crescent Lake		11	24S	6E 4800
21F19	New Dutchman Flat #2		21	18S	9E 4600
21F13	Paulina Lake		34	21S	12E 6130
21F15	Paulina Prairie		28	21S	11E 4285
21F3	Tangent		28	18S	10E 5400
21E15	Three Creeks Butte		27	16S	9E 5200
21E13	Three Creek Meadows		34	16S	9E 5650
22F2	Waldo Lake		15	21S	6E 5500
22F14	Willamette Pass		33	23S	5½E 5600
22F15	Windigo Pass		20	25S	6E 5800

Crooked River

19E3MP	Derr		14	13S	23E 5670
20E1MP	Marks Creek		25	12S	19E 4540
20E2	Ochoco Meadows		21	13S	20E 5200
19F1M	Snow Mountain		1	19S	26E 6300
19E4	Tamarack		8	15S	25E 4800

HOOD, MILE CREEKS LOWER DESCHUTES WATERSHEDS (6)

Hood River

21D5	Brooks Meadows		2	2S	10E 4300
21D25M	Cooper Spur		6	2S	10E 3690
21D1	Greenpoint Reservoir		28	2N	9E 3400
21D20	Knebal Springs		31	1S	10E 3850
21D23	Parkdale		6	1S	10E 1770
21D8	Phlox Point		6	3S	9E 5600
21D4	Red Hill		20	1S	9E 4400
21D9	Still Creek		25	3S	8½E 3700
21D7	Tilly Jane		35	1S	9E 6000
21D21	Ulrich Ranch Junction		28	1S	11E 3350
21D30	Umbrella Falls		3	3S	9E 5400
21D24	Upper Valley		20	1S	10E 2530
21D28	Switchback		28	1S	9E 3255

Mile Creeks - Mosier Creek

21D6	Brooks Meadows		2	2S	10E 4300
21D20	Knebal Springs		31	1S	11E 3850
21D21	Ulrich Ranch Junction		28	1S	11E 3350

Lower Deschutes River

21D12	Clear Lake		29	4S	9E 3500
21D22	Clear Lake Experimental		29	4S	9E 3500
21E6	Hogg Pass		24	13S	7½E 4755

LOWER COLUMBIA WATERSHEDS (7)

Sandy River

21D8	Phlox Point		6	3S	9E 5600
21D9	Still Creek		25	3S	8½E 3700

WILLAMETTE WATERSHEDS (8)

Clackamas River

21D15	Big Bottom		25	6S	7E 2118
21D13	Clackamas Lake		35	5S	8½E 3400
21D12	Clear Lake		29	4S	9E 3500
21D16	Lake Harriet		4	6S	7E 2065
21D14	Pearine Ridge	14 & 15		6S	7E 3500
21D8	Phlox Point		6	3S	9E 5600
21D9	Still Creek		25	3S	8½E 3700
21D17	Timothy Lake		26	5S	8E 3295

Santiam River

22E1	Detroit (town)		1	10S	5E 1610
22E2	Detroit Dam		7	10S	5E 1580
21E6	Hogg Pass		24	13S	7½E 4755
21E2	Marion Forks		28	11S	7E 2730
22E3	Mill City		29	9S	3E 826
21E5	Santiam Junction		14	13S	7E 3390
21E3	Whitewater Bridge		33	10S	7E 2175

McKenzie River

21E8	Dead Horse Grade		13	16S	7E 3850
22E4	Last Creek Ranch		24	16S	6E 1956
21E7	McKenzie		35	15S	7½E 2800
22E5	McKenzie Bridge		13	16S	5E 1392
22E6	Vida		23	14S	2E 800
21E9	White Branch Slide		15	16S	7E 2800

Middle Fork Willamette River

22F3	Cascade Summit		7	23S	6E 4880
22F6	McCredie Springs		26	21S	4E 2120
22F8	Meridian Dam		13	19S	1W 740
22F7	Oakridge		16	21S	1E 1410
22F5	Railroad Overpass		27	22S	5E 2750
22F4	Salt Creek Falls		11	22S	6E 4000
22F2	Waldo Lake		15	21S	6E 5500
22F14	Willamette Pass		33	23S	5½E 5600

Coast Fork Willamette River

22F9	Champion		12	21S	1E 1500
22F10	Golden Curry Creek		1	23S	1E 1196
22F13	Layng Creek R. S.		31	21S	1E 1200
22F12	Lund Park		22	22S	1E 1720
22F11	Weaver Creek		35	22S	1E 2240

Mary's River

23E1	Mary's Peak		21	12S	7W 4620

ROGUE, UMPQUA WATERSHEDS (9)

Rogue River

23G1	Althouse		17	41S	7W 4530
22G6	Annie Spring		19	31S	6E 6018
22G28	Beaver Dam Creek		1	38S	4E 5100
22G21	Big Red Mountain		31	40S	1W 6800
22G13	Billie Creek Divide		30	36S	4E 5300
22G27	Deadwood Junction		8	39S	3E 4600
22F19	Diamond-Crater Summit		14	24S	6E 5800
22G14	Fish Lake		3	37S	4E 4865
22G12	Fourmile Lake		4	36S	5E 6000
23G3	Grayback Peak		9	40S	4W 6600
22G17	Hobart Lake		12	40S	3E 5300
22G26	Howard Prairie		32	36S	4E 4500
22G16	Hyatt Prairie Reservoir		15	39S	1E 4300
22G22	Little Red Mountain		25	40S	2W 6500
23G5	Page Mountain		8	41S	7W 2025
23G5	Park Headquarters		8	41S	7W 2450
22G21	Rye Spring Spur		13	36S	4E 5000
22G10	Seven Lakes No. 1		3	35S	5E 6000
22G11	Seven Lakes No. 2		26	34S	5E 6200
23G2	Silver Butte		33	40S	4E 3720
22G20	Siskiyou Summit		17	40S	1W 4610
22G19	South Fork Canal		17	34S	1E 3900
22G1	Whalebeck		3	41S	7W 5120

Umpqua River

22F9	Champion		12	21S	1E 1500
22F18	Diamond Lake		24	27S	6E 5315
23G7	Elen Valley Summit		10	32S	10W 2193
22F16	North Umpqua		19	24S	6E 4235
22F23	Red Butte No. 1		16	27S	2W 4560
22F24	Red Butte No. 2		30	27S	1W 4000
22F25	Red Butte No. 3		30	27S	1W 3500
22F26	Red Butte No. 4		36	27S	1W 3000
22F27	Red Butte No. 5		20	27S	1W 2500
22F28	Red Butte No. 6		17	27S	1W 2300
22F17	Trap Creek		1	27S	2E 3810
22G1	Whalebeck		3	41S	7W 5120
22F15	Windigo Pass		20	25S	6E 5800

KLAMATH WATERSHEDS (10)

Klamath River

22G6	Annie Spring		19	31S	6E 6018
22G13	Billie Creek Divide		30	36S	4E 5300
21G5	Bly Mountain	15 & 22		33S	11E 5090
21F11	Chemult		21	27S	8E 4760
22G24	Cold Springs Camp		12	35S	4E 6100
20G12a	Crazyman Flat		9	42S	15E 6100
20H2a	Crowder Flat	(Cal)	30	47N	11E 5200
22F19	Diamond-Crater Summit		14	24S	6E 5800
21F12	Diamond Lake Jct. (97)		3	27S	4E 4600
21G6a	Dog Hollow		1	33S	14E 4290
20G12a	Finley Corrals		11	36S	14E 4700
22G12	Fourmile Lake		4	36S	5E 6000
21G4	Gerber		12	34S	13E 4850
22G16	Hyatt Prairie Reservoir		15	39S	1E 4300
22G26	Howard Prairie		32	36S	4E 4500
22G15	Lake of the Woods		11	39S	5E 4960
22G5	Park Headquarters		8	41S	7W 2450
22G25	Pelican Guard Station		9	36S	6E 4153
20G9MP	Quartz Mountain		2	34S	14E 5320
22G10	Seven Lakes No. 1		3	35S	5E 6000
22G11	Seven Lakes No. 2		26	34S	5E 6200
20H1a	State Line	(Cal)	21	48N	11E 5700
20G9AP	Strawberry		4	40S	14E 5700
20G2AP	Summer Rim		15	33S	16E 7200
21G2	Sun Mountain		22	34S	9½E 5350
20G13a	Sycan Flat		25	38S	14E 5250
21G3	Taylor Butte		14	33S	11E 5150

Pacific Power and Light Company's Snow Stations

NUMBER	NAME	LOCATION SEC.	TWP.	RGE.	ELEV.
1	Beatty (PP&L)	22	36S	12E	4300
10	Big 101 Ranch (PP&L)	22	38S	14E	4800
11	Chiloquin (PP&L)	14	34S	7E	4187
4	Crystal (PP&L)	26	42S	6E	4200
5	Fort Klamath (PP&L)	27	33S	7½E	4150
6	Kirk (PP&L)	1	33S	7E	4533
9	Quarts Mountain (PP&L)	11	37S	16E	5504
8	Herriman Lodge (PP&L)	1	36S	6E	4200
12	Yamsay (PP&L)	20	41S	11E	4600

LAKE COUNTY, GOOSE LAKE WATERSHEDS (11)

Goose Lake

20G15a	Bear Flat Meadow		27	36S	19E 5000
20G3MP	Goose Creek		5	40S	21E 5720
20G11a	Cox Flat		16	37S	18E 5750
20G10a	Crane Mountain		13	40S	21E 6020
20H2a	Crowder Flat	(Cal)	30	47N	11E 5200
20G15a	Dismal Swamp	(Cal)	31	48N	11E 4200
20G12a	Patton Meadow		20	34S	18E 6000
20G9MP	Quarts Mountain		2	34S	16E 5320
20G11a	State Line	(Cal)	21	48N	11E 5750
20G2AP	Strawberry		4	40S	16E 5600

Abert Lake

20G15a	Bear Flat Meadow		27	36S	19E 5000
20G11a	Cox Flat		16	37S	18E 5750
20G12a	Finley Corrals		11	36S	14E 6020
20G4a	Mill Creek		1	42S	17E 6200
20G9MP	Quarts Mountain		2	34S	16E 5320
20G10a	Sherman Valley		15	37S	21E 6600

Summer Lake

20G2AP	Summer Rim		15	33S	16E 7200

Silver Lake

21G12F	Silver Creek	25 & 26		29S	14E 4900
20G11a	Sycan Flat		25	38S	14E 5500

Warner Lake

20G3MP	Canon Creek		5	40S	21E 5320
20G10a	Crane Mountain		13	40S	21E 6020
20H4a	Dismal Swamp	(Cal)	31	48N	11E 4200
20G15a	Bear Mountain		1	36S	19E 6450
20G10a	Thomas Valley		15	37S	21E 6600

Guano Lake

19H1	Bald Mountain	(Nev)	17	45N	21E 6720
19G1a	Dart Mountain		1	36S	25E 6350
19H6a	Little Holly Mt.	(Nev)	8	45N	19E 6240

HARNEY BASIN WATERSHED (12)

Silvies River

18F7a	Call Meadows		29	20S	33E 5340
19H2	Bullyinant Lake		28	19S	26E 5600
19H1	Emigrant Butte		16	21S	27E 5300
18F1M	Ellewild Camp		22	20S	31E 5270
19H3M	Iron Summit		28	16S	29E 5791
19H1	Rock Spring		23	18S	32E 5100
19H3M	Snow Mountain		1	19S	26E 6300
18F4MP	Stinking Water		33	21S	34E 4800
18F2a	Willow Creek		19	22S	31E 5900

Donner Und Blitzen River

18H5a	Buck Pasture		21	24S	35E 5700
18G1MA	Fish Creek		2	31S	33E 7000
19H1	Hart Mountain		1	36S	25E 6350
18G4MA	Silvies		15	27S	32½E 6000
18G2a	"V" Lake		31	35½S	32½E 6600

Trout and Whitehorse Creeks

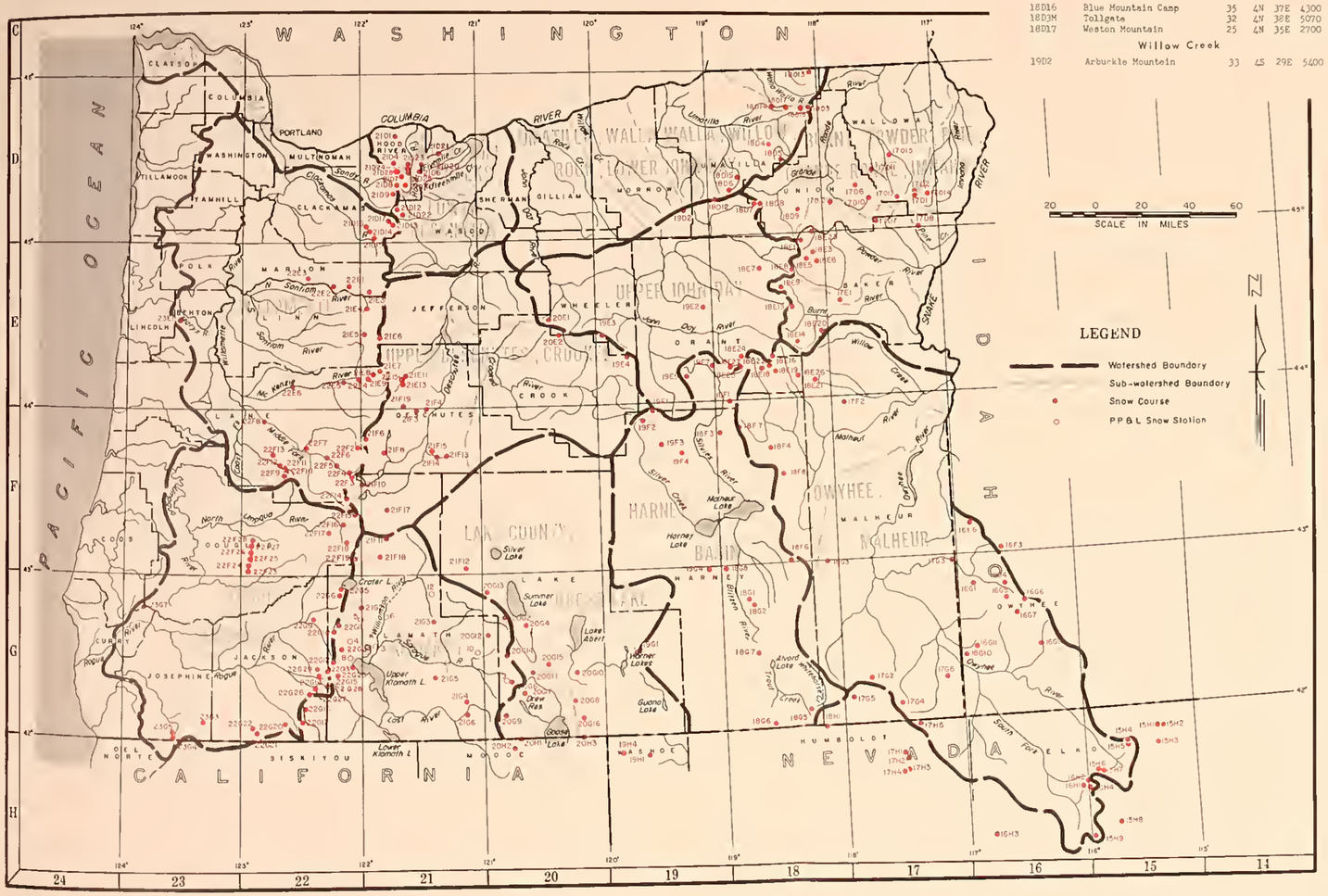
18G3a	Juniper Creek		16	41S	30E 4900
18H1	Disaster Peak	(Nev)	8	47N	34E 6500
17G3a	Oregon Canyon		8	40S	40E 6950
17G5a	Trout Creek		10	41S	38E 7800

Harney Lake

18G8	Buckskin Lake		2	30S	33E 5090
19G4	Hunter Flat		15	26S	29E 5020

LEGEND

SNOW COURSE ONLY	
SNOW COURSE AND SOIL MOISTURE	
SNOW COURSE, SOIL MOISTURE AND AERIAL MARKER	
SNOW COURSE AND AERIAL MARKER	
SOIL MOISTURE ONLY	
AERIAL MARKER ONLY	
SNOW COURSE AND PRECIPITATION GAGE	



Map and Index to OREGON SNOW COURSES

7-8-1910M-0

H

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY
- Douglas County Water Resources Survey

FEDERAL
- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - National Park Service
- Department of National Defense
  - Corps of Army Engineers

PUBLIC UTILITIES
- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES
- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS
- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

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SOIL CONSERVATION SERVICE
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COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation , navigation , mining and industry

"The Conservation of Water begins with the Snow Survey"